

THE AMERICAN PSYCHOLOGIST

THE AMERICAN PSYCHOLOGICAL ASSOCIATION, INC.

SOCIETY FOR THE PSYCHOLOGICAL STUDY OF SOCIAL ISSUES

A DIVISION OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

Announces

THE EDWARD L. BERNAYS ATOMIC ENERGY AWARD *for 1947*

The Society for the Psychological Study of Social Issues will bestow upon the individual or group contributing the best action-related research in the field of the social implications of atomic energy the EDWARD L. BERNAYS ATOMIC ENERGY AWARD, consisting of a \$1,000 U. S. Government Bond. This Award is part of the program of the Society to stimulate research in areas of significant contemporary social issues.

All research published or completed in 1947 will be eligible for consideration. Manuscripts reporting such research but which have not yet been published are solicited by the Society's Committee of Judges. All reports, in duplicate, must be in the hands of the Chairman of the Committee, Dr. David Krech, Swarthmore College, Swarthmore, Pennsylvania, not later than November 1, 1947.

The Committee of Judges consists of the following members of the SPSSI:

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Columbia University

DR. DAVID KRECH
Swarthmore College

DR. ALEXANDER LEIGHTON
Cornell University

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University of Michigan

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City College of N. Y.

DR. TALCOTT PARSONS
Harvard University

All communications concerning the Award should be addressed to the Chairman of the Committee of Judges:

DR. DAVID KRECH
Swarthmore College
Swarthmore, Pennsylvania.

THE AMERICAN PSYCHOLOGIST

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Dael Wolfe, *Editor*

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PUBLICATIONS OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

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Editor: HERBERT S. LANGFELD, *Princeton University*. Contains original contributions of a theoretical nature; bi-monthly.

Subscription: \$5.50 (Foreign \$5.75). Single copies, \$1.00.

PSYCHOLOGICAL BULLETIN

Editor: LYLE H. LANIER, *Vassar College*. Contains critical reviews of books and articles and critical and analytical summaries of psychological fields or subject matter; bi-monthly.

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JOURNAL OF CONSULTING PSYCHOLOGY

Editor: LAURANCE F. SHAFFER, *Teachers College, Columbia University*. Contains articles in the field of clinical and consulting psychology, counseling and guidance; bi-monthly.

Subscription: \$3.00 (Foreign \$3.50). Single copies, \$.60.

THE AMERICAN PSYCHOLOGIST

Editor: DAEL WOLFLE, *American Psychological Association*. Contains all official papers of the Association and articles concerning psychology as a profession; monthly.

Subscription: \$7.00 (Foreign \$7.50). Single copies, \$.75.

JOURNAL OF COMPARATIVE AND PHYSIOLOGICAL PSYCHOLOGY

Editor: CALVIN P. STONE, *Stanford University*. Contains original contributions in the field of comparative and physiological psychology; bi-monthly.

Subscription: \$7.00 (Foreign \$7.50). Single copies, \$1.25.

FIFTY-FIFTH ANNUAL MEETING OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

DETROIT, MICHIGAN, SEPTEMBER 9, 10, 11, 12, 13, 1947

PRELIMINARY ANNOUNCEMENTS

THE fifty-fifth annual meeting of the American Psychological Association will be held in Detroit, Michigan from Tuesday September 9 through Saturday September 13. Meetings will begin on Tuesday morning. The last sessions will close Saturday noon. Headquarters will be at the Hotel Statler.

TRANSPORTATION: Railroads serving Detroit are the Baltimore and Ohio, Chesapeake and Ohio, Grand Trunk, New York Central, Pennsylvania-Wabash, and Pere Marquette. Airlines reaching Detroit are the American Airlines, Capitol Lines, Michigan Central, Eastern, NorthWestern, Southern, TWA, and the United Airline. The Greyhound Bus Line and the Detroit and Cleveland steamers also serve Detroit.

Those driving to Detroit will in practically all cases approach the city from the direction of Chicago or the direction of Toledo. Those coming from the Chicago direction may take U. S. Highway 12 or 112. Those coming from the Toledo direction may take U. S. Highway 23, 24, or 25.

HOTEL ROOMS: The Detroit Convention and Tourist Bureau has arranged with the hotels listed below to reserve rooms for members attending the APA meeting. All of these hotels are within five blocks of each other.

Room reservations should be made by writing directly to the hotel of your choice. Rooms will be reserved in the order of application, so early reservation is desirable. Each member will be notified directly by the hotel as soon as the reservation has been made. If the hotel to which you write can not accommodate you it will attempt to secure a reservation in another hotel.

In requesting room reservations tell the hotel:

1. When you expect to arrive.
2. When you expect to leave.
3. The kind of room you want.
4. The name or names of the person or persons who will share the room with you. (It will be necessary to assign two people to most twin-bed rooms. Selecting your own roommate in advance is recommended. If you can not do that, tell the hotel whether or not they have your permission to assign another member to share the room with you if that becomes necessary in order to accommodate all attending the meeting.)

MEALS: Restaurants in the hotels and nearby will be open for all meals. Special luncheons and dinners may be arranged by writing to Edward T. Raney, Mich. S. Employment Service, Detroit, Michigan. If such arrangements are completed by June 9 an announcement can be included in the printed program.

COMMITTEE ON LOCAL ARRANGEMENTS: The Committee on Local Arrangements is listed below. All correspondence can be directed to the Chairman.

Edward T. Raney, *Chairman*, Michigan State Employment Service
John Rapparlie, United States Rubber Company, Registration and Information Desk
Claude L. Nemzek, University of Detroit, Reception
Alexander A. Schneiders, University of Detroit, Preparation of information
Chester E. Evans, General Motors Corporation, Publicity
Wilson McTeer, Wayne University, Exhibits
Ruth Hubbard, Consultation Bureau, Entertainment.

Hotel	Address	No. of rooms reserved for A.P.A.		Minimum Price for:		
		No. of rooms	No. of rooms reserved for A.P.A.	Single	Double	Twin-Bed
Barlum Tower	Cadillac Square and Bates Street	610	50	\$2.50	\$3.50	\$6.00
Book-Cadillac	1142 Washington Blvd.	1200	150	3.50	6.00	6.50
Fort Shelby	525 West Lafayette	900	50	3.00	5.00	6.00
Statler	1539 Washington Blvd.	1000	225	3.50	6.00	7.00
Tuller	521 Park Avenue	800	100	2.75	4.50	5.50
Wolverine	53 East Elizabeth	500	75	2.50	4.00	5.00

CALL FOR PAPERS

FIFTY-FIFTH ANNUAL MEETING OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

The Convention Program Committee

DOUGLAS H. FRYER, *Chairman*, GEORGE A. KELLY, IRVIN L. CHILD, WILLARD C. OLSON
DONALD G. MARQUIS, AND EDWARD T. RANEY

THE Convention Program Committee of the American Psychological Association presents this announcement of program plans and the Call for Papers by publication in the AMERICAN PSYCHOLOGIST. No other Call for Papers will be distributed. There will be no mailing to the individual members as has been the custom. The complete program will be published in the August AMERICAN PSYCHOLOGIST.

The Convention Program has mushroomed in recent years to an extent causing concern of the membership that its true functions will be lost. This year's Convention Program Committee has reviewed many suggestions of changes and criticisms of the organization of the program and, as a result, the following statement is made of general functions and procedures for the 1947 program at Detroit, September 9 to 13, 1947.

I. FUNCTIONS

The general purposes of the Convention Program are outlined as follows:

A. Individual Reports of Research

This is the traditional sounding-board function of the APA Convention, which provides members with an opportunity to make early announcement of scientific results which may affect the work of others, and to make themselves known personally to other members working in their areas of research.

B. Technical Problem Symposia

This is the kind of program developed in the AAAP, to establish a plan of research for the solution of technical problems, but which is equally effective in consideration of theoretical psychological problems. When conceived as a public round-table on a

large technical area, as often has occurred in the past, e.g. *measurement of accident proneness, introspective methods, personality test construction*, it usually has been found unsatisfactory; this form of Symposium is to be avoided. The Technical Problem Symposia of the APA Convention Program will be limited to the statement of a specific problem, e.g. *indices of conditioning, equating electric shock stimuli, the forced-choice technique in merit rating, criteria for equating muscle tension measures*. The Symposia are to be organized in the following manner: one or two specialists will be invited to present the technical problem or problems; a small group of members will be invited to discuss the problem (all are expected to be familiar with any research on the problem and no attempt will be made to present individual research papers); the chairman will direct the discussion and summarize at the end in a plan of action.

C. Theoretical Communications

This is the kind of program expected in addresses of the APA and Divisional Presidents. Other mature presentations of psychological theory which serve an integrative function in psychological thinking will be encouraged by the Convention Program Committee.

D. Public Addresses

This form of program is planned for members, their families and friends, to serve the function of entertainment and orientation into allied scientific and technical areas.

E. Apparatus Exhibits

This form of program is a traditional feature of the APA, but it has become less prominent as the Association has increased in size. Its original purpose was the same as A above, to acquaint members with the

technical developments of research. Later, apparatus companies and book and test publishers took over in large measure the exhibition of apparatus and procedures with the purpose of acquainting members of developments in commercial construction. When the Convention Program is held in hotels, as will be true this year, there is a charge by the hotel to all exhibitors according to the space required. The apparatus exhibit is continued as a part of the Convention Program with the two purposes of exhibiting technical developments by individual members and by commercial companies.

II. PROCEDURE

A. Individual Reports of Research

1. *General Call for Papers.* A general Call for Papers is issued below by the Convention Program Committee to all members of the Association. Regulations governing the preparation of abstracts will be found in Section III.

Abstracts of papers received in response to this general Call for Papers will be judged anonymously on their relative merits by several judges under the direction of the Convention Program Committee. Members submitting abstracts will be notified of acceptance or rejection. The Convention Program Committee has appointed a subcommittee, consisting of Robert J. Wherry, chairman, Hubert Brogden, Edward E. Cureton, Edwin R. Henry, and Erwin K. Taylor, to prepare a merit rating system which will be used by the Convention Program Committee for this purpose. This subcommittee has prepared the following statement of factors on which the rating of abstracts will be made.

Factors for Rating Abstracts

a. *Basic Data.* Is the paper based on sufficient data, facts, cases, observations (researches if a theoretical paper) to accomplish its purpose?

b. *Treatment.* Are the conclusions based upon the proper quantitative analysis, or proper logical deductions, or proper diagnosis?

c. *Contribution.* Does this paper present some new conclusion, method, procedure, apparatus, etc.?

d. *Interest.* What percentage of an appropriate Division of the APA to which this paper

might be presented would be interested in listening to the paper?

2. *Division Call for Papers.* Division Program Committees have been encouraged to issue Calls for Papers to their members. Division Calls for Papers will be found below for several of the Divisions of the APA. Divisions issuing Calls for Papers will take full responsibility for the selection of papers from the abstracts submitted directly to the Division. (Note this plan is different from 1946, when all papers were mailed to the APA and then submitted to the appropriate Division.) Members submitting abstracts to a Division will follow the regulations for the preparation of abstracts given in Section III below. Members of Divisions submitting an abstract in response to a Division Call for Papers may not submit a duplicate or second abstract to another Division or to the Convention Program Committee. If an abstract is sent to a Division Program Committee, it must be in the area of the Division. All abstracts sent to the Washington office will be considered for APA programs; none will be forwarded to Divisions.

3. *Deadlines.* All abstracts of papers, either submitted to Divisions or to the Convention Program Committee, will be prepared in triplicate on special forms bound in the center of this issue of the *AMERICAN PSYCHOLOGIST*. The deadline for submitting abstracts to the Convention Program Committee is June 9, 1947 in the office of the Executive Secretary; to the various Division Program Committees it is stated as part of the Division Call for Papers on pages 124-126. These are inflexible deadlines. The Convention Program Committee will meet in Washington, D. C. during the week beginning June 9 and will at that time read all abstracts and prepare the program for printing.

4. *Motion Picture, Lantern Slide, and Film Strip Presentations.* Motion picture, slide, and film strip presentations of research or technical materials will be scheduled in separate programs. Facilities will be available for 16 mm sound and silent motion pictures and for 16 mm and 35 mm film strips. Members desiring to present films, film strips, or lantern slides should send them to C. R. Carpenter, Department of Psychology, State College, Pennsylvania. The deadline for receipt of films is June 2, 1947. The APA Audio-Visual Aids Committee, of which Dr. Carpenter is chairman, will select the films to be shown and will schedule their presentation.

5. *Schedule.* Individual reports of research will be scheduled in groups of four papers for each program section, throughout the Convention Program, as follows:

Morning	Afternoon
8:50 to 9:50	1:40 to 2:40
10:00 to 11:00	2:50 to 3:50
11:10 to 12:10	4:00 to 5:00

Abstracts submitted to and accepted by the Divisions will be arranged in groups of four and will be scheduled in the same manner.

It is expected through the grouping of a limited number (four) of papers on similar research or theory and allowing sufficient time for travel between Sections that much of the distracting movement of members between Sections will be eliminated. The schedule allows twelve minutes for presentation of a paper and three minutes for discussion. This schedule will be arbitrarily adhered to by Program Chairmen.

6. *Illustrative Materials.* Those members desiring to use illustrative materials in connection with the presentation of papers are advised to prepare it in the form of pass-outs instead of lantern slides. It will be impossible to assign a lantern to each Program Section. Scheduling papers according to requirements for lantern presentation prohibits scheduling according to similarity of content of papers.

B. Technical Problem Symposia

1. Divisions will have complete responsibility for development of the Technical Problem Symposia of the Convention Program. They are expected to arrange one or more Technical Problem Symposia within the area of the activities of the Division, according to the purpose indicated under "I, B" above.

2. *Schedule.* Technical Problem Symposia will be scheduled on a two-hour basis throughout the Convention Program as follows:

Morning	Afternoon
10:00 to 12:00	3:00 to 5:00

3. *Regulations.* Division Programs for Symposia are to be published in the convention Program in the following manner:

Title of symposium
Sponsored by _____ Division

Fifty-word description of problem

Name of chairman

Names of participants

The deadline for Division Programs of Symposia is June 2, 1947 in the office of the Executive Secretary.

C. Theoretical Communications

1. *Explanation.* The APA Presidential Address will be scheduled on Thursday evening, September 11, 1947 without conflicting programs. A reception for the President will follow his address. Division Presidential addresses will be scheduled on Tuesday evening, September 9, 1947 at 7:00, 8:00, and 9:00 o'clock with least conflict of interests between Divisions scheduled at the same time. Business meetings of Divisions will precede or follow the Division President's Address according to a staggered plan of scheduling. Division Secretaries have been asked to submit titles for the addresses of the Division Presidents to the Executive Secretary not later than June 2, 1947.

2. *Theoretical Addresses.* The Convention Program Committee has invited suggestions from the Divisions of topics and speakers for theoretical addresses according to the purposes stated in "I, C" above. Two parallel sessions of two 45-minute theoretical addresses each are planned for Wednesday evening, September 10, 1947. All participants will be invited by the Convention Program Committee. Individual members who have suggestions for theoretical addresses should send them to Donald G. Marquis, Department of Psychology, University of Michigan, Ann Arbor, Michigan not later than May 1, 1947.

D. Public Addresses

The Convention Program Committee has invited suggestions from the Divisions of topics and speakers for public addresses according to the purpose stated in "I, D" above. Two parallel public addresses are planned for Friday evening, September 12, 1947. Speakers will be invited by the Convention Program Committee. Individual members who have suggestions for public addresses should send them to Donald G. Marquis, Department of Psychology, University of Michigan, Ann Arbor, Michigan, not later than May 1, 1947.

E. Apparatus Exhibits

According to the purpose as stated in "I, E" above, individual members and commercial companies are invited to exhibit apparatus and procedures as a part of the Convention Program. Interested individuals and companies should communicate their plans for exhibits to Edward T. Raney, U. S. Employment Service, Detroit, Michigan by August 16, 1947, from whom space allotments and regulations for exhibits will be received. Exhibitors will be charged five cents per square foot per day by the hotel, and will have to pay the costs of local storage, cartage, and the construction of exhibition booths that satisfy local requirements.

III. REGULATIONS FOR ABSTRACTS

The following rules govern the consideration of abstracts by Convention or Division Program Committees.

1. Abstracts will be typed double-spaced in triplicate on the Form for Abstracts which is bound in the center of this issue of the AMERICAN PSYCHOLOGIST.
2. Abstracts must not include tables or drawings.
3. Each member is limited to one abstract except in instances where joint authorship exists, when he is limited to presenting one paper on the program. His name may, however, appear as the co-author of another paper presented by another member.
4. Abstracts will be organized, if possible, according to the following outline:

Problem
Population
Procedure
Results
Conclusions

This form is not intended to preclude case studies, theoretical papers, surveys, descriptions of new tests or techniques, or other suitable papers. Where these can appropriately be abstracted in terms of the outline given above, doing so will facilitate the task of rating abstracts. If the nature of the paper makes the outline inappropriate, it can be disregarded.

5. Papers may not be presented by proxy. Each abstract will carry the signature of the author who guarantees to present the paper.

6. By action of the Association, abstracts may be accepted only from members. Multiple authorship will be permitted only (a) in case all authors belong to the Association or (b) in case the paper is read by

one author who is a member, and the other author is a trained and qualified investigator in an allied experimental science as shown by his holding membership in the national scientific society in his own field. Otherwise, acknowledgement of aid by a non-member may be made in the abstract itself.

7. By vote of the Association, papers previously read at sectional meetings are not acceptable for the Convention program, but this action does not preclude acceptance of a paper presenting additional experimental results on a topic concerning which preliminary report has been made at a sectional meeting.

8. Neither motion pictures nor lantern slides can be shown as part of the report.

IV. GENERAL CALL FOR PAPERS AND DEADLINES FOR PROGRAM MATERIALS

Abstracts of papers, suggestions for Technical Problem Symposia, theoretical and popular addresses, films and film strips, and requests for exhibit space should be submitted to the person and before the deadline indicated below for each.

<i>Program Material</i>	<i>Mail to:</i>	<i>Deadline for receipt</i>
Abstracts of papers submitted to APA Convention Program Committee	American Psychological Association 1515 Massachusetts Ave. N.W. Washington 5, D. C.	June 9, 1947
Abstracts of papers submitted to Divisions	Secretary or Program Committee chairman of the appropriate Division (See pages 124-126)	See pages 124-126
Motion pictures (sound or silent), slides, and film strips	C. R. Carpenter Department of Psychology State College, Pennsylvania	June 2, 1947
Suggestions for Technical Problems Symposia	Secretary of appropriate Division	May 1, 1947
Division sponsored Programs of Technical Problems Symposia	American Psychological Association 1515 Massachusetts Ave. N.W. Washington 5, D. C.	June 2, 1947

<i>Program Material</i>	<i>Mail to:</i>	<i>Deadline for receipt</i>
Suggestions for theoretical addresses	Donald G. Marquis Department of Psychology University of Michigan Ann Arbor, Michigan	May 1, 1947
Titles of Divisional Presidential Addresses	American Psychological Association 1515 Massachusetts Ave. N.W. Washington 5, D. C.	June 2, 1947
Suggestions for public addresses	Donald G. Marquis Department of Psychology University of Michigan Ann Arbor, Michigan	May 1, 1947
Apparatus exhibits	Edward T. Raney U. S. Employment Service Detroit, Michigan	August 16, 1947

V. DIVISION CALLS FOR PAPERS

The Divisions named below have prepared the following Calls for Papers and statements of program plans. Divisions not listed below are not issuing separate Calls for Papers but may plan Technical Problem Symposia on topics of interest to the Division.

2. *Division on the Teaching of Psychology*

The Division on the Teaching of Psychology is planning a program consisting of two or three somewhat longer presentations and discussions of selected topics. The Division, therefore, is not issuing the usual call for papers but will welcome suggestions concerning topics and speakers.

Suggestions should be sent to the Secretary of the Division, Edna Heidbreder, Wellesley College, Wellesley, Massachusetts.

5. *Division on Evaluation and Measurement*

Abstracts submitted to the Division on Evaluation and Measurement should conform to the regulations printed above as part of the general Call for Papers. They should be mailed to Robert L. Thorndike, Teachers College, Columbia University, New York 27, New York. The deadline is June 2, 1947.

6. *Division of Physiological and Comparative Psychology*

The Division of Physiological and Comparative Psychology requests that all persons desiring to present papers bearing on the general field of Physiological and Comparative Psychology at the 1947 meetings of the American Psychological Association submit their abstracts in triplicate to the Secretary of the Division, Harry F. Harlow, Department of Psychology, University of Wisconsin, Madison, Wisconsin. The abstracts must be in the hands of the Division Secretary by May 22. The abstracts must follow the prescribed form outlined above in the general Call for Papers.

7. *Division on Childhood and Adolescence*

Abstracts submitted to the Division on Childhood and Adolescence should conform to the regulations printed above as part of the general Call for Papers. They should be mailed to Arthur T. Jersild, Teachers College, Columbia University, New York 27, New York. The deadline is June 2, 1947.

8. *Society for the Psychological Study of Social Issues*

As a regular division within the American Psychological Association, SPSSI plans to participate in the 1947 national convention by presenting, in addition to its usual program of symposia, a number of sessions devoted to individual reports. Each session will include four individual reports grouped together according to their relationship to a general research area.

In view of the stated purpose of SPSSI, the program committee believes that the reports in these sessions should consist of research and theoretical studies which illustrate the contribution of psychology to the understanding and solution of significant social problems of our day. In order to facilitate grouping the reports, five central research areas have been formulated, each of which, we hope, can be explored in a single session. These research areas are as follows:

1) Problems of Re-educating People in the Democratic Way of Life (for example, the people of Germany and Japan)

2) Methods of Combating Racial and Religious Prejudice

3) Methods of Increasing Participation of Individuals in the Processes of Democratic Government

4) Methods of Educating the Public Concerning Basic Social Issues (for example, atomic energy)

5) Contributions of Psychoanalytic Theory to the Study of Social Issues

All members of SPSSI and of the APA and in collaboration, if desired with research workers in allied social sciences are invited to contribute papers which fall within the broad scope of any one of the above areas. The program committee will also welcome, for possible integration into the sessions, other papers which are consistent with the objectives and interests of the Division. All abstracts should follow the form prescribed in the general Call for Papers and should be received not later than Friday, May 23. Abstracts should be mailed to Daniel Katz, 36 Berkshire Road, Rockville Centre, N. Y.

For the Program Committee

Daniel Brower

Angus Campbell

John Harding

Evelyn Raskin, *Chairman*

10. Division of Esthetics

Abstracts submitted to the Division of Esthetics should conform to the regulations printed above as part of the general Call for Papers. They should be mailed to Herbert S. Langfeld, Princeton University, Princeton, New Jersey. The deadline is May 26, 1947.

12. Division of Clinical and Abnormal Psychology

The Division solicits abstracts of papers which authors may wish to present at the September meeting. Papers should, of course, be within the area of the Division. Abstracts should follow the prescribed form outlined in the general Call for Papers and must be in the hands of the chairman of the Division Program Committee (912 South Wood Street, Chicago 12) on or before May 10, 1947.

Donald B. Lindsley

David Rapaport

Robert A. Young

David Shakow, *Chairman*

14. Division of Industrial and Business Psychology

Abstracts submitted to the Division of Industrial and Business Psychology should conform to the regulations printed above as part of the general Call

for Papers. They should be mailed to Floyd L. Ruch, Department of Psychology, University of Southern California, Los Angeles, California. The deadline is May 26, 1947.

16. Division of School Psychologists

Abstracts submitted to the Division of School Psychologists should conform to the regulations printed above as part of the general Call for Papers. They should be mailed to Bertha M. Luckey, Psychological Service, Board of Education, Cleveland, Ohio. The deadline is May 26, 1947.

17. Division of Counseling and Guidance Psychologists

The Program Committee of Division 17 is issuing a call for papers for presentation at the September, 1947 meetings.

1) Individual reports of research. In accordance with the program plans of the APA, abstracts of individual research papers are being called for in the area of diagnostic and therapeutic procedures and in other areas of interest to the membership of this division. In order to meet association deadlines, these abstracts must be in the hands of Harold Edgerton, Department of Psychology, Ohio State University, Columbus, Ohio by 1 May, 1947. No abstracts received after that time can be considered for presentation. Abstracts will be reviewed by the members of the Program Committee of this division, and those selected for presentation will be forwarded to the Executive Secretary of the APA by 9 June.

2) Technical Problem Symposia. The Program Committee hopes to arrange symposia from the following list of six topics:

a. Grades vs. achievement tests as criterion measures.

b. Studies of recorded clinic or counseling interviews.

c. Counseling in industrial firms.

d. Community counseling programs.

e. Adaptation of military tests to school programs.

f. Evaluation of counseling programs.

Members of this division interested in participating in these symposia should get in touch with the Division Program Chairman, Dr. Edgerton, no later than 2 May so that the Executive Secretary of the APA may be notified of symposia membership by 1 June, 1947. The Program Committee will

invite, in addition, Division members to participate in the symposia.

Program Committee, Division 17

John G. Darley
Dewey B. Stuit
Harold A. Edgerton, *Chairman*

19. *Division of Military Psychology*

Abstracts submitted to the Division of Military Psychology should conform to the regulations printed above as part of the general Call for Papers. They should be mailed to William A. Hunt, Department of Psychology, Northwestern University, Evanston, Illinois. The deadline is May 26, 1947.

The Psychometric Society

The Psychometric Society will meet in Detroit with the American Psychological Association. The Society will communicate with its members regarding program plans.

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AN ANALYSIS OF ACTION ON SCIENCE LEGISLATION IN THE LAST CONGRESS

ROBERT W. LEEPER

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A BILL to establish a National Science Foundation was presented to the last Congress. After much delay, the Senate finally debated the bill on July 1-3, 1946 and passed it by a 48 to 18 vote. This large majority has tended to leave the impression that any new science-legislation bill is not likely to encounter difficulties in the Senate. It seemed then that the adoption of the bill was assured. However, when the bill was referred to a committee of the House of Representatives, this committee reported that there was not sufficient time to make a comparison between S. 1850 and a competing bill which had been placed before it on the same subject (the "Mills bill," H. R. 6448). Consequently, when Congress adjourned on August 2, the bill was lost, as far as the Seventy-Ninth Congress was concerned.

Several bills calling for the establishment of a National Science Foundation have been introduced into the Eightieth Congress. Senator Elbert D. Thomas of Utah introduced Senate bill S. 525. It is identical with S. 1850 as that bill was passed by the Senate last year. Senator Alexander Smith (for himself, Mr. Cordon, Mr. Revercomb, Mr. Saltonstall, Mr. Magnuson, and Mr. Fulbright) introduced S. 526. The text of this bill was published in *Science* (1947, 105, 191-194). Companion bills, identical to S. 526, have been introduced into the House of Representatives by Mr. Case, Mr. Hays, Mr. Mills, and Mr. Priest. Earlier Mr. Celler introduced H. R. 942 which is identical with last year's S. 1850 as it was reported to the Senate by the Senate Military Affairs Committee.

Some attempt has already been made to analyze the circumstances surrounding the demise of S. 1850. In *Science* of August 2, 1946 (104, 97-98), Dr. H. A. Meyerhoff, Executive Secretary of the AAAS, published an "Obituary: National Science Foundation, 1946." In this article he attempted not just an obituary, but also a coroner's report. He claimed that the loss of the bill had been quite unnecessary,

and that the responsibility for the loss rested squarely on the shoulders of the scientists who, after many mutual concessions had been made to reach an agreement on S. 1850, had presumably assisted in the preparation of a different sort of bill for presentation to the House of Representatives.

We can be glad that Dr. Meyerhoff did attempt more than just an obituary notice. We need to learn all we can from a first failure in order to prevent, if possible, any similar failures in the years to come. On the other hand, it is regrettable that this publication by Dr. Meyerhoff seems to have ended, for the time being, the discussion of the problems of science legislation. From his short analysis, it seems to be assumed that we now know enough about the circumstances that surrounded the loss of this first bill. Perhaps this is true. The problem is too important, however, to be abandoned so quickly. Instead, we ought to use all possible means to learn as much as we can about the history of this first attempt. It may be that such knowledge will be indispensable when the corresponding bill is considered by this Congress.

Fortunately, some sources of information about the reactions of Congress to S. 1850 are available. The bill received really extensive discussion on the floor of the Senate. A number of significant amendments were proposed, and the yeas and nays were recorded for the vote on most of them. An analysis of these votes can give us some significant insight into what happened to this first science bill, and some foresight as to what factors are likely to operate again. In the House of Representatives there was no opportunity for a vote on the measure, but the report of the committee hearings gives some scanty clues to the attitudes of that portion of Congress. Mainly the following discussion will analyze the votes in the Senate.

Since the majority in the final vote in the Senate was so large (48 to 18) it might seem that the whole

task is to avoid any repetition of such a tactical blunder as Dr. Meyerhoff believes was responsible for the loss of S. 1850. Actually, however, the situation is not nearly this simple. When the separate amendments were considered in the Senate, the vote on these in some cases was not nearly as one-sided as was the final vote on the whole bill. Therefore, if we know merely what the final vote was, we are not well informed. Any real understanding of what to anticipate in this Congress must take into account the more detailed information which we can get from the record of the whole series of actions of July 1-3. Let us therefore review this material.

When the National Science Foundation bill was taken up by the Senate, an amendment was first offered in the form of a substitute bill. It was offered by Senator Alexander Smith of New Jersey, with the sponsorship also of Senators Byrd of Virginia, Walsh of Massachusetts, Willis of Indiana, Hart of Connecticut, and McClellan of Arkansas. The motion to adopt this substitute bill was lost by a 24 to 39 vote. An analysis of this vote could be made, but the main issues were presented later in a series of more restricted amendments, and it is more informative to study the voting on these.

The first of these more particular amendments provided that the Science Foundation should be managed, not primarily by a single administrator appointed by the President, but by a Board which in turn would select its own executive agent. This amendment was debated at some length. Senator Smith maintained that scientists generally favored the board type of control, but that they had finally assented to the single-administrator type of control because they had been assured that Congress probably would approve only of that arrangement. Senator Kilgore replied to this by saying:

"I, for one, resent the implication that men like Dr. Bush, Dr. Bowman, and others can be blackjacked into an agreement in a sub-committee. No such thing happened. . . ." (Congr. Record, 79th Congress, 2d session, p. 8264).

Perhaps this is so. However, it is noteworthy that even Senator Kilgore himself had made some extremely strong statements on the matter earlier. Thus, in an article in *Science* of Dec. 21, 1945, he had said:

"... the *sine qua non* of any Government agency is

that its powers be vested in full-time Government employees whose principal responsibility is their public function, and who have severed all previous connections with private financial interests. From the Government standpoint, it is unthinkable that the powers of the proposed National Science Foundation be vested in a board of non-compensated persons, whose principal responsibilities would lie in some other direction, as some scientists have so urgently and honestly recommended." (102, p. 633).

At any rate, a great many of his fellow Senators do not seem to have been impressed by his argument that he resented the suggestion that the scientists might have been pressured into accepting a plan of control which did not represent their first choice. When a vote was taken on the amendment to provide a board type of control, the motion was lost by a vote of only 34 to 35.

What is perhaps still more important, in view of the subsequent shifts in relative party strengths following the November 1946 elections, is that among the Republicans the vote was 23 to 5 in favor of the board plan of control. The majority of Southern Democrats also favored the board control. Among the Democrats as a whole, the vote was 29 to 11 against this amendment. In the November elections, however, eight of these 29 Democrats (along with the one Progressive—LaFollette) opposing this amendment were replaced by Republicans. Only a few of those voting for the amendment have been replaced by others who might perhaps take an opposite stand.

These more specific data about the vote on this amendment give us something to puzzle about. Do they signify that, if the next Congress adopts a science bill, it will definitely favor a shift to a board plan of control? Do these actions reflect a real faith in the value of decentralizations of control wherever possible? Were the Republicans and Southern Democrats merely reacting adversely to the temporary prospect of having another powerful administrator appointed by President Truman? It is hard to say. Conceivably, since the Republicans have some prospect soon of deciding such appointments, they may now tend to favor the S. 1850 plan, whereby the National Science Foundation would be administered by an executive officer who, as Senator Magnuson said, would have virtually the status of a member of the President's cabinet. Or, it may really be that the permanent view of the Republican group

has been rather well expressed by Mr. Clarence J. Brown, a Republican member of the House of Representatives. In the hearings on the related bill, H. R. 6448, which proposed a board type of control, Mr. Brown said:

"My own opinion is that the great value of this whole project is that the Government will not be running it, and I would like to try something in this country that the Government would not run. That is an experiment in itself. It is Government money, but the program would be run by somebody else." (Hearings on H. R. 6448; May 28-29, 1946; p. 40).

At any rate, in view of all this, it would seem very reasonable for the scientific groups to reconsider the possibility of a board type of control, with the executive head of the organization elected by the board and responsible to them. This Congress probably will either favor this plan or at least be willing to approve it, if it appears that the scientists are convinced that it would give a better means of control.

A next amendment from Senator Hart of Connecticut was accepted without a recorded vote. It removed the provision permitting the administrator, with the advice of the Board, to establish perhaps as many as three additional Divisions beyond those named in the bill.

An amendment to change the provisions on patent rights was then debated. In S. 1850, the sections regarding patent rights had stated in rather strong terms that any discoveries, inventions, or findings resulting from publicly-subsidized research should be dedicated to the public on a royalty-free basis, except in certain cases where private funds had also contributed materially to the production of such advances. Senator Smith's amendment, on the other hand, proposed a larger measure of discretionary power for the Science Foundation. It provided in more general terms that:

"Each contract . . . shall contain provisions governing the disposition of inventions produced thereunder in a manner calculated to protect the public interest and the equities of the individual or organization with which the contract is executed" (Congr. Record, pp. 8336, 8346).

It is odd, in a way, that the Republicans were so interested in this issue. For when the matter of a social-science division was being debated, Senator Smith and his associates insisted that the bill was a bill for subsidizing research only in pure science, not

also in applied science. "We are trying to subsidize pure science, the discovery of truth" (Congr. Record, p. 8349). It was partly from this consideration that they argued that support should not be extended to social-science research. Apparently they did not feel too sure about this, however, because the patent issue was viewed with considerable interest.

This amendment to weaken the patent provision was lost by a vote of 31 to 41. However, it is noteworthy that the Republicans voted 25 to 4 to change the patent provisions. The Democrats voted 36 to 6 to keep the patent provisions as in S. 1850. What is more, in the November elections, 9 of the non-Republican Senators voting for the S. 1850 patent provisions have been replaced by Republicans. And among the 24 Senators absent and not voting, 12 were either Republicans, or Democrats who have been replaced by Republicans in this Congress. If there has been no shift of opinion among these men in the meantime, therefore, we might well expect that this Senate will reverse the earlier vote on the patent issue.

The next amendment proposed an elimination of a Social Science Division from the list of Divisions provided in the bill. This question received lengthy discussion (see Congr. Record, pp. 8157-8, 8164-8, 8216-7, 8232-3, 8237-9, 8263, 8348-50). In defence of the S. 1850 provision, Senators Kilgore and Magnuson pointed out that in the hearings on the bill it had been urged that provision should be made for support of such research as soon as a program could be constructed and could find approval by the other members of the National Science Foundation. As Senator Kilgore said,

"The feeling was that the natural sciences and the social sciences were linked together; that it was very hard to separate them under two separate foundations, and that therefore they should be included in this measure, with the provision, however, that their program must be submitted and must be approved before any work can be done." (Congr. Record, p. 8350).

Still more strongly, the idea of a social science division was supported by Senator Fulbright of Arkansas and Senator Thomas of Utah. For instance, Fulbright said,

"It seems to me that social science is a recognized field of study now. It has been sadly neglected for the very reason that it does not yield immediate financial returns

such as the invention, for example, of a . . . useful gadget. For that reason it needs governmental assistance a great deal more than mechanical engineering does, because the study of mechanical engineering brings its own rewards under our commercial system. . . . If one looks at the situation in the world today, or even at the situation in our Nation today, he will find that the difficulties lie not with respect to the production of tangible things, but with those human relations which enable us to get along together" (Congr. Record, pp. 8164-5).

However, a great many objections were raised to this part of the bill. It was objected that the social sciences could not be defined. Even Senator Fulbright had his difficulties in trying to help on this. When he was asked to define social sciences, he started well enough by saying, "I would say such studies as are concerned primarily with human relationships are studies in social science." But then he went on to say further:

"Politics is a fundamental social science. I confess that the word 'science' is not properly used in that field in that it is not of the same nature as mathematics" (Congr. Record, p. 8164).

This is odd reasoning, because chemistry and geology and any similar field would have a hard time showing that they are "of the same nature as mathematics." Still further he said,

"I asked an able scientist yesterday if he would define social science. I had been worrying about that. He said in his definition, 'In the first place, I would not call it science. What is commonly called social science is one individual or a group of individuals telling another group how they should live.'"

At that, Senator Willis interjected, "I wonder if that is not a pretty good definition." Then, instead of correcting the implications of the statement, Fulbright continued, as though assenting:

"Is that not just about what Government does? Government by a majority means that the majority tells the minority what to do." (Congr. Record, p. 8164).

Because of this difficulty of definition, it was urged that the inclusion of the social sciences would open the way for all sorts of study. For example, Mr. Hart said:

"Under the heading of social sciences, many things may present claims for inclusion. There are anthropology, various aspects of psychology, certain political and economic factors, and even racial and religious

matters." (Southern Senators take note! —and apparently they did.) "In fact, . . . A case can be made for philosophy, for literature, for the arts, and there is no limit" (Congr. Record, p. 8216).

It was questioned whether the social sciences could accomplish anything important. Senator Willis, for example, argued that the program should be confined

" . . . to the fields in which we know there is a practical and a crying need for development, and leave matters which are of doubtful value to be taken up after we have tested the plan on things of known value."

It was urged that social science leads too easily to "isms" and quakeries and that the work of the Foundation would be apt to be discredited because of types of studies that might be done by the Social Science Division. A lot of emphasis was put on the idea that social-science research would be a matter of applied science, and that the bill was intended as a means of fostering only pure science. It is hard to see how this could be maintained, when the bill also provided for "a Division of Health and Medical Sciences, a Division of National Defense, a Division of Engineering and Technology." Apparently, consistency was a jewel not highly prized in these discussions.

Another objection was that the original report by Vannevar Bush had not suggested research in the social sciences. Repeatedly the assertion was made, even more strongly, that the natural scientists were opposed, as a group, to the inclusion of the social sciences. In support of this assertion, the communications from the so-called Bowman committee were repeatedly cited (pp. 8232, 8233, 8238-9, 8263). Thus, Senator Taft said,

"Finally, Mr. President, the scientists disapproved of the establishment of a Division of Social Sciences. But they were told that they must accept what the subcommittee of the Committee on Military Affairs recommended, or else they would not get any bill" (Congr. Record, p. 8263).

It was urged that social sciences should be cared for, if at all, under a separate foundation. Thus, Senator Hart contended,

"There is no connection between the social sciences, a very abstract field, and the concrete field which constitutes the other subjects to be dealt with by the proposed science foundation. . . . no board, no administrative organization which we could set up could possibly

be adequately qualified to administer such policies and carry on work in two fields so absolutely diverse" (Congr. Record, p. 8349).

When this amendment came to vote, it was passed by a vote of 46 to 26. The Republicans voted 25 to 4 to omit the social sciences. Southern Democrats voted 14 to 3 to omit the social sciences. In other words, the Social Science Division was eliminated by these two groups—the Republicans and the Democratic Senators from the Southern states. Senators outside of these two groups voted 19 to 7 in favor of having a Division of Social Sciences. Of this number, five have been replaced by Republicans in the recent election. Therefore, if provision is made in a further bill for a Division of Social Sciences, it can probably come only through a change of stand by the Republican group.

Another amendment by Senator Hart provided that scholarships or fellowships should be granted only to graduate students, and not also to assist students to finance their undergraduate work. This amendment was defeated by a vote of 42-27. The vote again, however, was primarily along party lines. The Republicans, 20 to 6, favored giving merely graduate fellowships. The Democrats, 35 to 7, favored the more extensive (and admittedly more expensive) program provided in S. 1850.

A last amendment by Senator Smith proposed that the funds should be distributed without any requirement referring to geographical considerations. S. 1850, on the other hand, provided (roughly speaking) that 10% of all funds should be made available in equal amounts to all states, and that 15% should be available to the various states in proportion to their respective populations, these sums to be available merely to tax-supported colleges and universities. The amendment was rejected. No record of the vote was taken, but the discussion indicates that the vote was probably along much the same lines as on the amendment mentioned just above.

The National Science Foundation bill then came to a vote as a whole, and was passed by a vote of 48 to 18. Almost the entire adverse vote was Republican. From this party, 16 members voted *against* the bill, 10 for it. Among the Democrats, only O'Daniel of Texas and McKellar of Tennessee voted with the larger number of Republicans; 37 other Democratic Senators, both from the South and from the North, voted for it.

Even with the shifts in the Senate from the recent election, it therefore appears that a national science foundation bill could again secure a majority vote.¹ Even if such passage were secured, however, this does not say that the bill could receive the life-blood required in the way of appropriations of needed funds. The debate on the bill in the 79th Congress had involved some discussion of how much it would cost the government, but the proponents of the bill seemed very reluctant to admit that it would involve an appreciable expense. Thus, at one point, Senator Capehart kept pushing Senator Magnuson for some statement of the probable outlay. Thus:

MR. CAPEHART: "How much does the Senator recommend we appropriate for this year?"

MR. MAGNUSON: "There would not be any money appropriated this year."

MR. CAPEHART: "What would the Senator say would be appropriated next year?"

MR. MAGNUSON: "I imagine the first year it would be around \$20,000,000. It would take up the slack of probably \$100,000,000 that is now being duplicated in all the other agencies. Probably it would save \$80,000,000 the first year." (Congr. Record, p. 8266).

No other definite statements were made as to how much the proposed program would cost, even though the original Bush report had made some definite proposals—about \$33,500,000 for the first year, to rise to about \$122,500,000 by the fifth year (V. Bush—Science: The Endless Frontier, p. 33).

In view of these recommendations, we can hardly say that the Senate faced, realistically, the question of what they were approving. The same matter will come up again. It will make little difference as to whether the next Congress adopts a national science foundation bill if it will not make a substantial appropriation to carry on the functions thus approved. Since the majority party of this Congress is doing some very loud talking about the way in which they

¹It is to be remembered, of course, that 30 of the 96 Senators were not present and voting on this final vote. From this group of 30, 13 were Republicans and 17 were Democrats, from which there are three who have been replaced by Republicans in the next Congress. In this whole group of 30, certainly some of the Democrats were opposed to the enactment of S. 1850 and certainly some of the Republicans were in favor of it. All in all, it would seem that such a science-legislation bill should get a favorable vote in the Senate of the 80th Congress unless the absences at the time of the vote should happen to weight the scales against the bill.

are going to reduce expenditures and reduce taxes, there will be a strong tendency to leave science legislation as little more than a magnificent gesture. There is no use in speaking as Magnuson did. The new foundation may effect some economies. But it is preposterous to talk as though the investment of \$20,000,000 in it could effect a saving of \$80,000,000 in other existing agencies. The purpose of the bill is not to take over the research work already being done by other agencies. Its purpose is to add a governmental function not previously assumed by the federal government, and it will add an expense that is a clearcut addition to those assumed by the preceding Congress!

From the above analysis, it may be said that the record hardly suggests that the problem in this Congress will be simply one of avoiding tactical errors of introducing and supporting competing bills. The factors involved run much deeper than this. It is folly to assume that the final vote in the Senate indicated that a bill of the S. 1850 type would get the same decisions again. The situation must be understood in much more particular terms than that.

It is not impossible, of course, that the actual decisions in the next Congress will depend partly on communications from individual scientists, all over the country, to the Senators and Congressmen from their parts of the country. It may be worthwhile, therefore, to conclude this analysis with a table showing in detail "who voted in what way" on each of the major issues mentioned above, and showing also

which members were absent from the Senate in this earlier case, since they probably will help decide the matter when it comes up for discussion again. Since the purpose of this table is to look toward the future, rather than just to record the past, each name has been starred where a new Senator has been elected in the place of the man thus designated, and the name of the new Senator is indicated in parentheses following the starred name. To facilitate the study of regional differences in the voting, the states are listed alphabetically under each of three main sections of the United States: (1) the "eastern and mid-western" states, (2) the "southern" states, and (3) the "Rocky-Mountain and Pacific-coast" states. Republican senators are listed in capital letters; Democrats are listed in italics, and in small letters. The other symbols used in the following table are to be interpreted in this way:

1850 = a vote against an amendment to alter S. 1850, or a vote for the bill as a whole on the final vote (last column to the right);

Bd = a vote for the board plan of control as contrasted with the single-administrator plan provided for in S. 1850;

LP = a vote for the amendment providing for loose patent control;

E = a vote to eliminate the Social Science Division;

Gr = a vote to limit fellowships or scholarships solely to graduate students;

N = a vote against S. 1850 as a whole;

(Bd), (1850), etc. = the vote a Senator indicated he would have cast if he had been present at the time of the vote.

TABLE 1
Analysis of Votes on S. 1850 and Proposed Amendments

Eastern and Midwestern

Connecticut					
*HART, T. C. (BALDWIN, R.)	Bd	LP	E	Gr	1850
McMahon, B.	1850	1850	E	1850	1850
Delaware					
BUCK, C. D.	Bd	LP	E	Gr	N
*Tunnell, J. M. (WILLIAMS, Jn.)	1850	1850	1850	1850	1850
Illinois					
BROOKS, C. W.	Bd	LP	E	Gr	N
Lucas, S. W.	1850		1850		1850
Indiana					
CAPEHART, H. E.	Bd	LP	E	Gr	N
*WILLIS, R. E. (JENNER, Wm.)	Bd	LP	E	Gr	N
Iowa					
HICKENLOOPER, B. B.		LP	E		(N)
WILSON, G. A.					
Kansas					
CAPPER, A.	Bd	LP	E	Gr	N
REED, C. M.	Bd	LP	E	Gr	(N.V.)
Maine					
BREWSTER, O.					
WHITE, W. H.	Bd	LP	E	Gr	N
Maryland					
*Radcliffe, G. L. (O'Connor, H.)		LP	1850	Gr	1850
Tydings, M. E.					
Massachusetts					
SALTONSTALL, L.					
*Walsh, D. I. (LODGE, H. C.)	Bd	LP	E	Gr	1850
Michigan					
FERGUSON, H.	1850	LP	1850	1850	1850
VANDENBURG, A. H.					
Minnesota					
BALL, J. H.	Bd	LP	E	Gr	N
*SHIPSTEAD, H. (THYE, E.)					
Missouri					
*Briggs, F. P. (KEM, J.)					
DONNELL, F. C.	Bd	LP	E	Gr	1850
Nebraska					
BUTLER, H.					
WHERRY, K. S.	Bd	LP	E	Gr	N
New Hampshire					
BRIDGES, S.	Bd	(LP)	(E)	(Gr)	N
TOBEY, C. W.					
New Jersey					
HAWKES, A. W.	Bd	LP	E	Gr	N
SMITH, H. A.	Bd	LP	E	Gr	1850
New York					
Wagner, R. F.	1850	1850	1850	1850	1850
*Mead, J. M. (IVES, I. M.)	1850	1850	(1850)	1850	1850
North Dakota					
LANGER, W.	1850	1850	1850	1850	1850
YOUNG, M. R.	1850	LP	E	1850	1850
Ohio					
*Huffman, J. W. (BRICKER, J.)	1850	1850	E	1850	1850
TAFT, R.	Bd	LP	E	Gr	N

TABLE 1—Continued

Eastern and Midwestern (Continued)

Pennsylvania					
*Guffey, J. F. (MARTIN, E.)	1850	1850	1850	1850	1850
Myers, F. J.	1850	1850	1850	1850	1850
Rhode Island					
*Gerry, P. G. (McGrath, J. H.)	Bd	LP	E	Gr	(N)
Green, T. F.	(1850)	(1850)	(1850)	(1850)	
South Dakota					
BUSHFIELD, H. J.		LP	E		
GURNEY, C.	Bd	LP	E	Gr	N
Vermont					
AIKEN, G. D.	1850	1850	1850	1850	1850
*AUSTIN, G. D. (FLANDERS, R.)					
West Virginia					
Kilgore, H. M.	1850	1850	1850	1850	1850
REVERCOMB, C.	Bd	LP	E		
Wisconsin					
*LaFollette, R. M. (McCARTHY, J. R.)	1850	1850	1850	1850	1850
WILEY, A.	Bd	LP	E	Gr	1850
Southern States					
Alabama					
Hill, L.	1850	1850	1850	1850	1850
*Swift, G. R. (Sparkman, J. J.)	Bd	1850	E	1850	1850
Arkansas					
Fulbright, J. W.	1850	(1850)	(1850)	(1850)	(1850)
McClellan, J. L.	Bd	LP	E	1850	1850
Florida					
*Andrews, C. O. (Holland, S.)		1850	E	1850	1850
Pepper, C.	1850	1850	1850	1850	1850
Georgia					
George, W. F.	Bd	1850	E	1850	1850
Russell, R. B.	Bd	1850	E	1850	1850
Kentucky					
Barkley, A. W.	1850	1850	1850	1850	1850
*STANFILL, W. A. (COOPER, J. S.)	Bd	LP	E	Gr	N
Louisiana					
Ellender, A. J.					
Overton, J. H.	1850	1850	E	Gr	1850
Mississippi					
Bilbo, T. G.					
Eastland, J. O.	Bd	1850	E	1850	(N)
North Carolina					
Bailey, J. W. (Umstead, W. B.)					
Hoey, C. R.	Bd	1850	E	1850	1850
Oklahoma					
MOORE, E. H.	Bd	LP	E	Gr	N
Thomas, Elmer					
South Carolina					
Johnston, O. D.	1850	1850	E	1850	1850
Maybank, B. R.	1850	1850	E	1850	1850
Tennessee					
McKellar, K.	1850	1850	E	1850	N
Stewart, T.	Bd				
Texas					
Connally, T.					
O'Daniel, W. L.	Bd	LP	E	Gr	N
Virginia					
*Burch, T. C. (Robertson, A. W.)		1850	E	Gr	
Byrd, H. F.	Bd	LP	E	Gr	

TABLE 1—*Concluded**Rocky-Mt. and Pacific Coast States*

Arizona					
<i>Hayden, C.</i>	1850	1850	1850	1850	1850
<i>McFarland, E. W.</i>					
California					
<i>Downey, S.</i>	1850	1850	1850	1850	1850
<i>KNOWLAND, W. F.</i>	Bd	1850	E	1850	1850
Colorado					
<i>Johnson, E. C.</i>	1850	1850	E	1850	1850
<i>MILLIKIN, E. D.</i>	Bd	LP	E	Gr	N
Idaho					
<i>*Gossett, C. C. (DWORSHAK, H. C.)</i>	1850	1850	E	1850	1850
<i>Taylor, G. H.</i>	(1850)	1850	1850	1850	1850
Montana					
<i>Murray, J. E.</i>	1850	1850	1850	1850	1850
<i>*Wheeler, B. K. (ECTON, Z. N.)</i>					
Nevada					
<i>*Carville, E. P. (MALONE, G.)</i>	1850	1850	E	1850	1850
<i>McCarran, P. A.</i>	1850	1850	1850	1850	1850
New Mexico					
<i>Chavez, D.</i>	1850	1850	1850	1850	1850
<i>Hatch, C. A.</i>					
Oregon					
<i>CORDON, G.</i>					
<i>MORSE, W. L.</i>	1850	1850	1850	1850	1850
Utah					
<i>*Murdock, A. (WATKINS, A. V.)</i>	1850	1850	1850	1850	1850
<i>Thomas, Elbert D.</i>	1850	1850	1850	1850	1850
Washington					
<i>*Mitchell, H. B. (CAIN, H. P.)</i>	1850	1850	1850	1850	1850
<i>Magnuson, W. G.</i>	1850	1850	1850	1850	1850
Wyoming					
<i>O'Mahoney, J. C.</i>		1850	1850	1850	1850
<i>ROBERTSON, E. V.</i>	Bd	LP	E	Gr	N

THE FOREIGN LANGUAGE REQUIREMENT FOR THE PH.D.

CHARLES BIRD, WILLIAM T. HERON, PAUL E. MEEHL, DONALD G. PATERSON

University of Minnesota

THE Graduate School at the University of Minnesota appointed a committee in 1945 to reconsider the present requirement that a candidate for the Ph.D. degree must pass special examinations in two foreign languages, usually German and French. Chairman R. M. Elliott appointed the authors of this article to act as a committee to prepare reports for the graduate faculty in psychology to be presented to the Graduate School Committee on the Foreign Language Requirement.

The present article presents two reports which have been submitted to the Graduate Committee. It has been submitted to the AMERICAN PSYCHOLOGIST in order to focus the attention of academic and professional psychologists upon foreign language requirements.

Members of the graduate faculty in Child Welfare and in Educational Psychology and Education have also prepared reports which are in harmony with the reports presented below.

REPORT OF DEPARTMENT COMMITTEE

The response to a brief questionnaire concerning the importance of the foreign language requirement for the Ph.D. degree in psychology circulated to members of the graduate faculty in psychology November 15-18, 1946 is summarized as follows:

1. Seven of nine graduate faculty members consider knowledge of foreign language to be of "little or no value" for scholarly work in psychology. None believed it to be of "great value."

2. Of 79 Ph.D. theses approved by the department since 1920, the present graduate faculty can recall only two in which explicit use of German or French was incorporated in the dissertation.

3. Pooled rankings assigned to knowledge areas outside of the field of psychology in answer to the following question, "From your present vantage points, how would you rank the knowledge of the following non-psychological subjects as to their professional value to a psychologist in your own field?" were as follows:

Statistics.....	1
Biological Sciences.....	2.5
Mathematics.....	2.5
Social Sciences.....	4
Philosophy.....	5
Education.....	6.5
Public Speaking.....	6.5
Foreign Language.....	8

The following resolution was adopted by the graduate faculty members of the department of psychology:

"Whereas the traditional requirement of mastery of two foreign languages for the Ph.D. degree with psychology as a major can be called into question for the following reasons:

1. In most of the fields and areas of knowledge in psychology at present there is no significant information published in foreign languages.¹
2. Most students under the present system do not learn a useful mastery of the foreign languages.
3. The traditional requirement of French and German is archaic in view of present world conditions inasmuch as those two nations are not now producing scholarly contributions and the greater part of their major contributions have been and will be translated into English.
4. In the few instances where a graduate student needs to consult a foreign language publication, it would be more economical of the student's time and energy to have the material translated for him than to have to spend the effort to learn languages for which he will have very minor use.
5. In most cases there are other skills upon which time for mastery could be better

¹The accuracy of this statement is attested to by the evidence presented by S. W. Fernberger, "On number of articles of psychological interest published in different languages," *Amer. J. Psychol.* in 1917, 1926, 1936, and 1946.

spent both from the standpoint of the individual and with reference to social welfare than it is now spent in the attempted mastery of foreign languages.

Now, therefore, be it resolved that it is the consensus of the graduate faculty members of the department of psychology that the Graduate School of the University of Minnesota should revoke the requirement of mastery of two foreign languages for the Ph.D. degree in psychology and that our department should be given the right to prescribe in place of this traditional requirement substitutions which are acceptable to the Executive Committee of the Graduate School and the Graduate Faculty and which the department genuinely believes will more adequately fit the Ph.D. candidate for his proper place in society."

A series of options might be adopted so that the requirements for the Ph.D. degree in psychology could be made sufficiently flexible to meet the needs of each candidate with the approval of the major adviser, the graduate committee of the department, and the Graduate Group Committee. The Ph.D. in psychology requirement would then be major, minor, dissertation, and two options from among the following:

1. Reading knowledge of German
2. Reading knowledge of French
3. Reading knowledge of Russian
4. Reading knowledge of Spanish
5. Statistics
6. Mathematics through calculus
7. A biological science, including medical subjects
8. A social science
9. Philosophy and logic of science
10. Courses in problems of higher education
11. Advanced courses in public speaking

None of the options from 5 through 8 could be chosen if it constitutes the student's minor.

Should the graduate faculty permit modifications of the foreign language requirement, the department would proceed to work out a more definite and specific definition of how options listed above could be satisfied.

COMMENT ON ABOVE REPORT

It is to be noted that the Department Committee merely requested autonomy in the setting of its Ph.D. requirements. Undoubtedly, for some students one

or two foreign languages would be required. For others, especially those preparing for positions in applied psychology, probably no foreign language would be required.

The request for autonomy has not been acted upon and will not be acted upon until the Graduate School Committee completes and submits its report to the graduate faculty of the university. Whatever action is finally taken will, in all probability, not occur until sometime during the academic year 1947-48.

To supplement the report reflecting the views of the graduate faculty of the department and to guide the department in the setting of options it was decided to canvass the opinions of those who hold the Ph.D. degree in psychology from Minnesota. A total of 77 questionnaires were mailed; 68 were returned with 9 failing to respond, a percentage return of 89. The summary of the results are presented below without comment.

Opinions of Ph.D.'s in Psychology

- I. Have you read professional psychological material in any foreign language since 1936?

	Number		Per Cent	
Frequently.....	3	4		
Several times.....	14	20		
One or two occasions.....	27	40		
Not at all.....	24	35		
Total.....	68	99		

- II. How well can you at the present read psychological material in the following languages?

	German		French	
	Num-ber	Per Cent	Num-ber	Per Cent
Easily.....	5	7	15	22
With difficulty.....	11	16	20	29
With great difficulty.....	14	20	14	20
Not well enough to be of practical value.....	38	56	19	28
Total.....	68	99	68	99

- III. You fulfilled the foreign language requirement. Of how much value do you consider that fact to be in your own post-Ph.D. work?

	Number		Per Cent	
Great value.....	0	0		
Considerable value.....	7	10		
Little value.....	33	49		
No value.....	28	41		
Total.....	68	100		

- IV. From your present vantage point, how would you rank knowledge of the following non-psychological subjects as to their professional value to you if you would have had an opportunity to choose?

(Rank in order of merit)

	Rank Order	Mean Rank Order	S. D.
Statistics.....	1	1.68	1.07
Biological science (includ. med.).....	2	2.81	1.62
Social science.....	3	4.19	1.47
Philosophy and logic of science.....	4	4.26	1.76
Mathematics (excl. statistics)	5	4.62	2.04
Public speaking.....	6	5.46	1.77
Education (prob. of higher educ., history of educ., or philosophy of educ.).....	7	6.02	1.86
Foreign language.....	8	6.88	1.45
V. What do you believe should be done about the foreign language requirement for Ph.D.'s in psychology at Minnesota?			
	Number	Per Cent	
Continued as at present.....	4	6	
Only one foreign language to be required	10	15	
Abolished.....	11	16	
Student to be permitted options.....	39	57	
Not qualified to say.....	1	1	
No answer.....	3	4	
Total.....	68	99	

COMMENTS OF RESPONDENTS

That the respondents felt keenly about the subject matter of the questionnaire is evident from the fact that an 89 per cent return was secured without using Toops² four and five letter follow-up technique to insure a similar return. Additional evidence is available in the comments inserted on a goodly number of the questionnaires. The following quotations have been selected to indicate the variety of views expressed.

The following represent the small number in favor of the foreign language requirement: "I suspect that the language requirement may serve as a 'screening' function." "A knowledge of foreign languages is worthwhile as a part of the cultural requirement for a Ph.D. . . . I think that persons without knowledge of foreign languages are not well educated." "I suppose it is really very difficult to justify the inclusion of language requirements for all prospective Ph.D.'s in psychology. Nevertheless, I am definitely in favor of retaining this 'hurdle' as one of the requirements." "I believe the Ph.D. degree should reflect cultural as well as professional training; therefore, a graduate student should master one foreign language."

The following reflect varying degrees of opposition

²Toops, H. A. The returns from follow-up letters to questionnaires. *J. appl. Psychol.*, 1926, 10, 92-101.

to the present requirements: "Tailor-make the requirements to meet the individual's needs, emphasize language if necessary for the person." "I favor retention of one language requiring more than superficial knowledge of the language." "I had four years of German in high school and three full-year college courses. The system whereby students learn only enough to pass an exam is probably wholly useless." "I think the language requirement should be abolished not because its objective is bad but because it does not achieve its objective." "The Graduate School ought not to lay down inflexible and universally applicable prerequisites." "Most of us have more than we can do to keep up with the literature in English in our interest areas." "The time spent on learning foreign languages might better have been spent for further orientation in more pertinent fields." "I should prefer to have spent those 100± hours (in learning the language) otherwise and hire translators now if ever necessary. That a psychologist should be made to learn French and not be required to understand a derivative or the logic of science, for two examples, is utterly absurd." "In my present work, I make little use of biological sciences, mathematics or language. I wish I knew a whole lot more about education, philosophy, social studies and was less rusty on statistics." "I would have benefited by spending the time devoted to foreign languages on study of educational administration, labor relations and personnel administration, and philosophy and logic of science." "If an article is good it is translated by a linguist with more accuracy than I can do it. I can pay a language major for translation and save time." "I feel that the language requirement was a meaningless hurdle greatly contributing to 'graduate student neurosis.'"

A concluding bit of information is in order. The Graduate Committee on the Foreign Language Requirement is proceeding in a most admirable fashion. It is being aided by the Committee on Institutional Research under the chairmanship of Dean T. R. McConnell. This Committee has directed Dr. Ruth E. Eckert to ascertain the views of all members of the graduate faculty, graduate students now on campus who have passed their foreign language requirement and all Ph.D.'s who have received their degrees from the University of Minnesota. These three inquiries will indicate the extent to which psychology, educational psychology, education, and child welfare represent a unique problem with respect to the question of foreign languages for the Ph.D.

PSYCHOLOGY AND PSYCHIATRY¹

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THE Menninger Foundation-Kansas University School of Clinical Psychology springs into corporate being as the result of many forces—forces not born or generated over night. It is the experience of many men and women put together that has gone into the naissance of our School.

Not only experience, but a spirit of cooperation, a moving urge for mutual cooperation and for collaboration with others of similar interest—this too has gone into the parentage of this School. This cooperative spirit is reflected in its organizational structure. Never before in history have the Federal government, a State government, and a private institution combined to set up a teaching machine.

There is a saying current among us that psychiatry has arrived—or at least that it has emerged. If we are more conservative, we say it is emerging. I think we picture a lowly, obscure medical discipline practiced by a small number of, for the most part, undistinguished but devoted physicians rising to heights of considerable importance through sheer force of clinical necessity. We are not even quite sure ourselves why psychiatric patients should have suddenly seemed to become so numerous. So long as the selection of medical category was left to the public, so long patients could select an obstetrician, a surgeon, an eye doctor or a heart specialist according to their own conception of the nature of their illness, guided to be sure in part by medical prejudices. The only psychiatric patients were those whose friends and relatives forced this classification upon them with the aid of the sheriff and the judge. But when the differentiation became dependent upon cooperative groups of physicians representing these specialties, when the triage began to be made by medical scientists, the assignment to the psychiatrist suddenly loomed very much larger. Under a relationship with the public, such as that of the Veterans

Administration, where every patient who needs help must be proffered it, one after another, just as they come, the great majority of cases do not turn out to be medical or orthopedic or dermatological or surgical. They turn out to be psychiatric.

And so, because large numbers of patients are now being handed over to psychiatrists, of which in turn there are but a very small number, psychiatry has become a magical word. It would almost seem as if all medical science might have to be reorganized and reconceived so that instead of being one of many smaller specialties clustering about medicine as a nucleus, psychiatry might become the center, with surgery, gynecology, ophthalmology, urology, internal medicine itself ranged about it as adjuvants.

My impression is that precisely something like this is actually coming about. I have long thought it would, and said so often—and long ago. Do not ascribe this to any prophetic vision on my part. I think it is the logical conclusion from a deductive hypothesis which the course of human events and the evolution of medical thinking seem to have justified.

That hypothesis is not one for which I or any of us here would claim any credit, but it is one which older leaders in psychiatry and in psychology—a few of them—proclaimed early in this century, and which Plato and other wise men perceived and defined centuries ago. In an allied sense it has been the burden of the teaching not only of the philosophers but of every great religious teacher and leader.

I refer to the hypothesis which has many technical names—the “holistic theory of personality,” the “psycho-biological principle,” the “total personality concept” and many others. In religious terms it reads this way: “Man whose body you perceive, whose voice you hear and whose warmth you feel, is more than flesh and bones; he has a soul.” The philosopher would say: “Of human beings there are material aspects and there are non-material aspects; man has a spirit.” And now doctors, borrowing the cue from the psychologists, say the same thing in new words: “Psychology is a basic science necessary

¹A condensed version of the address delivered at the inauguration of the Menninger Foundation-Kansas University School of Clinical Psychology, October 21, 1946. The address appeared in full in the *Bulletin of the Menninger Clinic*, March 1947.

to the understanding of human beings and their vicissitudes no less than the basic sciences of physics and chemistry upon which we have hitherto leaned exclusively."

It is fascinating to contemplate the possibility of identifying those factors in social evolution which suddenly bring medical scientists—some of them—back to a truth known better two thousand years ago than it is today. It is almost equally fascinating to review the history of culture and the history of medicine and to trace the divorce of what we call psychology from the science and practice of medicine and its transillient affiliation with mysticism, with philosophy and with religion. Perhaps it is medicine that has wandered rather than psychology.

The fact is that today here we are—a group of us—all with the same vision. Skeptics might say that we all have the same faith. At least we all speak the same language. We all have the same password; we are all concerned with the psyche.

Some of us say it in Greek, and some in Latin. We say it in German, in Hungarian, in Spanish, in French and in English. We say it—some of us—with clinical procedures in mind, some of us with research projects, some of us with educational programs. But we all say it, we all use it, we all center our thinking and our living about it. In such a union, whether one is a psychologist or a psychiatrist of a psychoanalyst or a psychometrician is of minor importance.

To this union of kindred minds the traditional practice of medicine brings a rich heritage. To the students of this first class, who have come here for training in clinical psychology, I have stressed the fact that the word clinical is one for which they should have profound reverence. It carries with it the highest ideals and best traditions of the medical profession. It implies the consideration given by one who is well to one who is sick—who lies abed.

The discipline of psychology on the other hand brings to medicine not only that essential *vitamin*, that too long lacking element, which it needs, that we have stressed above; but it brings to medicine also a tradition of objective measurement, of clearly defined logic, or properly methodological procedure which clinical practice and clinical thinking tend to make us forget and neglect. Traditional psychiatric nosology has finally been forced into open bank-

ruptcy, largely by the penetrating symptomatological analyses made by the psychologists. And a very healthy state of affairs it is, I say. We can now begin to define, with a precision long absent from our work, the clinical factors—psychological and otherwise—which characterize similar syndromes. The diagnostic function of the clinical psychiatrist, in my opinion, would no more exclude the special techniques of the psychologist in his diagnostic studies than would a capable internist routinely exclude the findings of the roentgenologist. This has led to our irrevocable affiliation.

Whether, in the course of events, the therapeutic function of the psychologist will develop and find its proper place in the same way that the therapeutic function of the x-rays has found its place, we can only guess. I should expect it to do so.

Psychiatrists should not be surprised that psychologists are not yet fully accustomed to their new clinical role. Psychologists similarly should not be surprised if the medical profession, jealous of its historical and traditional responsibilities, is somewhat slow in welcoming the psychologists. In my own mind there is no doubt that the time will come when the assistance of the psychologists in the diagnosis let us say of cancer or arthritis would be taken as a matter of every day routine by the internist, and that the treatment of certain types of illnesses by the psychologist, associated with the psychiatrist, would be taken as standard procedure. Such a time is not here yet.

And so in all our work at this clinic and in this school, I think we should remember that we have a triple function: that of learning to do better what we are trying to do, that of teaching others what we do and setting up procedures worthy of more general trial, and finally that of seeking out more of the answers to the mysteries of the unknown.

It is to this triple purpose that our school of psychology, like our school of psychiatry, is dedicated. Similarly our other schools to be, schools for social workers, schools for nurses, schools for internists and surgeons will be likewise so dedicated. It is this conception of education and it is this conception of research and it is this conception of psychiatry which the Menninger Foundation was established to perpetuate.

VALIDATION OF THE GENERAL CLERICAL ABILITIES TEST FOR SELECTION AND PLACEMENT OF WAR DEPARTMENT CIVILIAN PERSONNEL

STAFF, PERSONNEL RESEARCH SECTION, PERSONNEL RESEARCH AND PROCEDURES BRANCH, ADJUTANT GENERAL'S OFFICE

IN THE Spring of 1943, a Civilian Personnel Research Subsection was established in the Personnel Research Section with the assigned objective of constructing, validating, and standardizing tests to be used for the selection and placement of civilian employees of the War Department. From its inception, the organization was hampered in its efforts to pursue the path of rigorous scientific methods by two unfortunate circumstances—both probably inevitable in such a large scale, decentralized operational enterprise. Yet each of these circumstances was, paradoxically, an integral part of the total selection and placement picture in the War Department from which the need for the new organization finally emerged. The first was the understandably urgent wartime need of the Army's operating personnel program for usable personnel selection devices with a minimum of delay. The second was the apparently unavoidable remoteness of certain policy-forming levels of authority, from the practical problems of test construction and validation. Trained and competent *psychological* test technicians were, in the main, conspicuous by their absence at those policy-forming levels. What was represented there, instead, was a certain acquaintance with *educational* achievement testing, which tended to carry with it the assumption that "face validity" and generalized norms were all that were needed to establish the validity of an aptitude test in an industrial situation.¹

¹This viewpoint is illustrated by the following excerpt quoted from the *Civilian Testing Handbook* published by the Office of the Quartermaster General for the guidance of lower echelon operating agencies. Under the heading of "Test Validity" this manual states:

"There have been many attempts to set up mathematical estimates of test validity by correlating the test with other types (sic) of criteria. Generally speaking, the validity of the test is best determined by using common sense in discovering that the test measures component abilities which exist in both

Despite definite handicaps, a number of tests were produced and installed in civilian agencies of the War Department before the subsection was disbanded late in 1945. Very few of these, however, were ever validated or standardized in the best conventional manner. One exception was the General Clerical Abilities Test which was thoroughly explored in a number of carefully planned validation studies. The procedures and results of this work are outlined in the report which follows.

The General Clerical Abilities Test includes six sub-tests:

a. *Alphabetical Order* consists of 150 pairs of words, with the letters R and W between them. The examinee underlines one of these letters to indicate whether or not the words of each pair are in correct alphabetical order. The time limit is five minutes.

b. *Number Reversal* consists of 150 pairs of numbers, with R and W printed between each pair. The examinee underlines one of these letters to indicate whether or not the second number of each pair is an exact reversal of the first. The time limit is five minutes.

c. *Coding* is a 100-item 10-choice word-number substitution test. A key at the top of each page connects each word with a four-digit number. Each item consists of one of the key words, followed by all of the key numbers, and the examinee underlines the correct one. The time limit is five minutes.

d. *Number Speed* consists of 126 very simple problems in the addition, subtraction, multiplication, and division of whole numbers. The examinee writes each answer in a box. The time limit is five minutes.

e. *Word Meaning* consists of 80 pairs of words to be designated as synonyms, opposites, class-mem-

the test situation and on the job. The common sense approach to the problem of validity can be strengthened greatly by basing the estimate of the component in the job on systematic observation or job analysis."

ber pairs, or none of these. The time limit is 10 minutes.

f. *Arithmetic* consists of 20 problems dealing with clerical and business matters. The examinee writes the answer to each problem in a box. The time limit is 30 minutes.

The first four sub-tests are essentially speed tests; their scores are added to provide a "Clerical Speed score." The Word Meaning and Arithmetic sub-tests are scored separately; in order to increase its

Validity studies of General Clerical Abilities Test were carried out on more than 50 different groups of employees in offices and installations of the War Department. All of the data for these studies were collected by qualified psychologists attached to the Field Service Unit. Each of these field agents had the responsibility of selecting the samples on which he conducted the research (within the practical limitations of the work load of the particular Army installation and the availability of personnel). He

TABLE 1
Validities of the General Clerical Abilities Test. Multiple Correlations and Beta Weights of Sub-tests with CAF Grade for Various Clerical Occupations

INSTALLATION	GROUP	N	R	BETA WEIGHTS		
				Cler. Sp.	Wd. Mean.	Arith.
I. Benicia Arsenal	Clerical Employees	75	.51	.177	.266	.135
	Warehouse Employees	98	.50	-.196	.069	.576
	Clerical & Warehouse (Combined)	181	.38	-.254	.049	.500
II. San Francisco Port of Embarkation	Payroll Clerks	41	.27	.295	-.184	.017
	Fiscal Clerks	34	.41	.266	-.326	.329
	Tallymen	39	.43	.443	-.021	.034
	Keypunch Operators	48	.51	.298	.317	-.012
	Personnel Interviewers	45	.34	.039	.195	.201
III. Fort Bragg	Payroll Clerks	87	.23	-.153	-.034	.280
	General Clerks	114	.16	.022	-.143	.220
IV. Census Bureau	Statistical Clerks	265	.58	.270	.128	.291
	Editorial Clerks	356	.32	.150	.052	.251
	Stat & Edit Clerks (Combined)	621	.43	.201	.055	.257
	Tab. Operators	87	.16	.142	.025	.006
	Procedure Clerks	84	.50	.168	.050	.336
V. Hqs 2d Sv Cmd	Clerks	165	.45	.182	-.124	.403

contribution to the total test variance, the latter is given a weight of 2 in view of its smaller number of items and its greater reliability per item. The correctness of this procedure was indicated in subsequent studies involving more than 2000 cases, in which the multiple correlations with criteria were computed for separate scores and for various combinations. In these studies, the multiples based on all six sub-tests taken separately were only slightly higher than those based on the Clerical Speed Total (unweighted sum of the first four sub-tests), the Word Meaning score and the Arithmetic score.

administered or supervised the administration of the tests and collected the criterion data. Wherever it was feasible to do so, these data were collected *prior* to the administration of the tests. All tests were scored centrally at the Personnel Research Section's office in New York City. Thus the possibility of criterion contamination from local knowledge of the test scores was precluded.

In most cases two different criteria were used. In groups of mixed job-levels, Civil Service Grade, which is essentially a salary criterion, was employed as a criterion. Supervisors' ratings in one form or

another were also obtained on all of the groups studied. This was done whether the employees were all in one grade or in several. Ratings were usually obtained under rather unfavorable conditions. Since it could never be assumed that any one supervisor in a given study would be able to rate more

of rating, and to help the rater in avoiding or correcting such defects in his ratings insofar as possible.

Several different rating scales were employed. One of these contained only a single 9-step scale of *Overall Ability and Performance*; a revised version of this scale contained only 3 steps. Another scale, the

TABLE 2

Validities of the General Clerical Abilities Test. Multiple Correlations and Beta Weights of Sub-tests with Supervisors Ratings for Various Clerical Occupations

INSTALLATION	GROUP	N	R	BETA WEIGHTS		
				Cler. Sp.	Wd. Mean.	Arith.
I. Benicia Arsenal	Clerical Employees	75	.46	.095	.204	.211
	Warehouse Employees	98	.33	.307	— .219	.205
	Clerical & Warehouse (Combined)	181	.30	.034	— .035	.298
II. San Francisco Port of Embarkation	Payroll Clerks	41	.60	.440	.000	.234
	Fiscal Clerks	34	.18	— .139	— .163	.134
	Tallymen	39	.49	.538	— .017	.144
	Keypunch Operators	48	.49	.115	.081	.362
	Personnel Interviewers	45	.28	.219	.041	.124
III. Fort Bragg	Payroll Clerks	87	.39	.197	.278	.070
	General Clerks	114	.19	.164	— .019	.064
IV. Census Bureau	Statistical Clerks	265	.29	.221	.076	.036
	Editorial Clerks	356	.36	.279	.037	.100
	Stat & Edit Clerks (Combined)	621	.33	.254	.058	.068
	Tab. Operators	87	.13	.130	— .049	.037
	Procedure Clerks	84	.22	— .189	— .232	.292
V. Hqs 2d Sv Cmd	Clerks	165	.28	.090	.082	.172
VI. Los Angeles Port of Embarkation	Correspondence Clerks	44	.25	.180	.163	— .041
	Personnel Interviewers	37	.16	.190	— .028	— .116
	Computing Clerks	36	.21	.199	— .067	.079
	Other Clerks	99	.33	.179	.096	.128
VII. NY Port of Embarkation	New Typists	97	.11	.034	.099	— .099
	New Clerks, medium work	74	.09	.091	.000	— .033
	New Clerks, routine work	84	.16	.156	— .009	.024
	New Computing Clerks	61	.56	.519	.236	— .185

than 2 or 3 different people, ranking procedures were out of the question. On the other hand, there was an advantage in that all ratings were obtained personally by the field agents, who were competent psychologists. The field agent interviewed individually all the supervisors concerned in any one study. He was alerted to detect indications of halo effect, badly skewed distributions, and other pitfalls

Test Research Rating Scale, contained 17 different possible traits, e.g., quality, dependability, industry, etc., each to be rated by means of a graphic scale. The field agent after examination of the job descriptions, observation and consultation, selected the 4 or 5 traits most appropriate for that particular position. This scale was so designed as to require the rating of *all* rates on *one* trait at a time.

The validities of the General Clerical Abilities Test computed against Civil Service position grade for a number of populations, are presented in Table 1, along with the beta weights for the three sub-scores of the test. Table 2 lists the validities for these same populations, plus others, where supervisors' ratings were used as the criterion. In each case, the populations selected for presentation are representative of the more than fifty groups to which the test was administered. In view of the small size of many of the samples, the stabilities of the corresponding values are questionable.

Inspection of Tables 1 and 2 reveals that the validities for the various groups tested range from .16 to .58 (median value .42) when the criterion is Civil Service grade and from .09 to .60 (median value .28) against supervisors' ratings. The correlations with Civil Service grades generally exceed those with supervisors' ratings. Part of this difference is doubtless accounted for by the inclusion of the last two installations in Table 2. For the various positions at these installations, Civil Service grade was invariable, i.e., all employees in a given job held the same CAF grade. In this circumstance it is obvious that there would have been some restriction in range of talent and a consequent lowering of the correlation coefficient. But even when these two installations are eliminated, the validities computed against ratings are still somewhat lower (median value .31) than those computed against Civil Service grade. This may indicate, on the one hand, that measurable abilities are more important than is usually claimed in determining promotion. On the other hand, it may indicate that the supervisors generally were unable completely to ignore job level in making ratings, and that this knowledge biased their ratings in an unpredictable fashion.

A comparison of the two sets of beta weights is of additional interest in this connection. For correlations against CAF grade (Table 1), it appears that the betas for the Arithmetic sub-test are generally highest. Moreover, arithmetic is weighted considerably higher, in general, where grade is the criterion used than it is for correlations against ratings (Table 2). For the last two installations, where grade was

invariable for each group, the beta weights for Arithmetic are near zero or negative; but even when mixed-level groups are compared, this sub-test appears to be of considerably more importance where predictions of grade are involved. Again, it is evident that measurable differences in ability, particularly arithmetic ability in this case, are of some significance in determining grade placement or promotion.

Turning to the correlations against ratings (Table 2), there appears to be some evidence that Clerical Speed is the most important of the variables involved in the test. This is particularly true for the fixed-level groups, most of which are also fairly low-level jobs.

The point that stands out most clearly from the results presented in Tables 1 and 2 is the marked variability in the validity of the test, both from one installation to another, and from one clerical occupation to another at the same installation. The differences between installations probably reflect variations in selection and placement procedures, promotion policies, etc. As for specific clerical occupations, it appears that the test is more valid for computing clerks (including payroll clerks and statistical clerks) than for jobs involving more routine clerical activities. The wide range of the validity coefficients is further evidence that a given battery of tests may have high validity for one occupation and low validity for another which appears to be quite similar (e.g. payroll clerks at Fort Bragg and at San Francisco Port of Embarkation, Table 2). Moreover, even where the validities for apparently similar occupations are fairly close, the regression weights for the two occupations may be quite different (e.g., clerks at Benicia Arsenal and at Headquarters, 2nd Service Command, Table 1).

In accounting for this variability in validity coefficients and regression weights, the possible effect of sampling error cannot be ruled out, in view of the small number of cases in each population. Nor can the possibility of various types of experimental error be entirely eliminated. However, it appears that test validity in industrial personnel work cannot safely be assumed on the basis of apparent similarity of job titles or position descriptions.

SOME AREAS OF CAUTION FOR THE PSYCHOLOGY STUDENT

THEODORE LANDSMAN AND MANFRED FRANK DE MARTINO

Syracuse University

CURRENTLY in the field of psychology there has been seen an unprecedented growth in the undergraduate and graduate student bodies of our American universities. The more optimistic social scientists can view this influx as a healthy reaction of society to a strongly felt need. It presents a picture of society organizing to maintain itself against the growing threat of mental disease. Nevertheless, the need at the moment is so great as to far overtax the facilities of available applied psychologists. It is neither unusual nor unexpected to discover those who feel this need consulting not only the charlatan, see Steiner (3), but also the self-admitted semi-qualified. Nor is it unusual to find the professionally unqualified eager to render this immature service, operating under the delusion that some help is better than none.

It is a strong and mature student who can resist this urge to advise and counter with a sympathetic referral to a qualified psychologist. For this reason, a word of caution should accompany each of those student-psychologists who will spend up to seven years in preparation for qualified entrance into the field.

SPECIFIC AREAS FOR CAUTION

A student's acquaintance with the many tools and techniques of the psychologist brings with it the usually well-motivated if dangerous desire to wield the scalpel or test the new toy. Too few are aware that the tools of psychology in the unpracticed hand can do as great damage to the organism as the unskillfully applied surgical instrument. There are a number of areas in the field of applied psychology which have undue fascination for the student. These are the areas in which the greatest harm can be accomplished; these are the areas in which are hidden the pitfalls for the student and these are the areas wherein the integrity of the field will meet its test. Attention of the student should be directed to both the values of and dangers in the use of hypnosis, cathar-

sis, diagnosis, advice, vocational guidance, test interpretation, and psychotherapy.

Hypnosis. The use of caution should be emphasized particularly in connection with the practice of hypnosis. This phenomenon seems to attract the interest of a wide variety of individuals. One of the disturbing things about hypnosis is that only comparatively few individuals really understand its workings.

Research (5) has demonstrated that if an individual consents and submits to being hypnotized and is a good (highly hypnotizable) subject, he cannot resist being put into a hypnotic state. After having been hypnotized a few times a good subject can be put into a deep hypnosis almost instantly. Once such a subject has been developed, besides being highly susceptible to hypnosis by the particular hypnotist and almost completely under his control while in hypnosis, he is also very easily hypnotized by other hypnotists. The only way the subject can be protected is by means of some special procedure.

Just as recall of past events is possible under hypnosis, so are delusions, hallucinations, amnesia, analgesia, and certain forms of paralysis. In light of these facts it is apparent that a semi-scientific hypnotist could unknowingly do a great deal of harm to a good subject. Hypnosis is to be practiced judiciously, and only by those who fully understand its workings and serious ramifications.

Catharsis. While there are many professionally trained who might condone the use of mental catharsis, by students, actually it contains a serious pitfall. To allow his classmate to pour out his griefs and pent-up feelings seems to be the least one can expect of a friend, psychology major or not. The pitfall is unmasked, however, at the close of the cathartic outpouring when the troubled friend concludes with this plea: "That's it. You are a psychology major, what should I do now." Responsibility for carrying out a therapeutic program is inevitably placed in the lap of the sympathetic friend who was under the impression that he was merely to be a listener. His class-

mate will not look to the psychology student as a mere sympathetic listener, but will request, almost demand, specific recommendations, therapeutic measures. As a corollary it must be recognized that in this seemingly innocent and useful service, mental catharsis, the psychology student, because of his field of interest, is obliged to do even less than that expected of a classmate. However, it is not to be expected that he should summarily reject nor ignore a friend in need; rather, his obligation both to his friends and his profession is to know the available psychological services and to refer those in need to the appropriate service.

Diagnosis and Giving Advice. Psychology students seem to find it difficult to resist diagnosing and labeling individuals with such terms as insecurity, inferiority, neurosis, phobia, and compulsive obsessive. Even assuming that the diagnosis is correct, it should be realized that the chances of harm being done to the individual far outweigh any possible benefits which might be derived from the diagnosis. Simply to tell an individual that he has inferiority feelings results in driving him further into his feelings of inferiority. To inform an individual that he is a compulsive obsessive in most instances tends to make him feel more ridiculous and neurotic. Diagnosis alone is of comparatively little value. What is greatly needed and desired is effective psychotherapy. The person with an emotional disturbance does not want to be "labeled," he wants to be helped.

The giving of advice seems to be a practice of which most individuals feel quite capable. This is especially true in the cases of certain student psychologists. Some feel capable of handing out advice regardless of the seriousness or kind of problem. Quite often, unfortunately, a well meaning student gives out advice which has a deleterious effect on the recipient's personality. The giving of advice is dangerous for several reasons. For one thing the student analyst may not fully understand the dynamics of the situation and hence give the wrong advice. Also, the client may misinterpret the advice given and in his attempt to carry it out become more involved and confused. Finally, it should be pointed out that organic factors which probably the novice is totally unaware of could really be at the bottom of the disturbance. The student psychologist should remember that when he gives advice he is accepting a responsibility. In the event

something goes wrong the recipient can come back with the statement, "You told me to do that." A good rule for the student of psychology to follow is: *Never give advice.*

Test Interpretation and Vocational Guidance. The frequent complaint of thousands of college students who go through admission test batteries, that they seldom are informed of the results, is justified. Yet few of them are aware of the problems involved in a formal report of scores and standings to the student. While no information on the scores is of little value, some information (such as scores and norms alone) can be detrimental to adjustment possibilities and educational-vocational choices. Before interpreting a test score, the student can first ask himself these two questions: Do I know the standard deviation, reliability, validity, and other relevant statistics pertinent to this test? Secondly, can I explain these concepts to the testee? After these are satisfactorily answered, the student-interpreter can question whether or not the test is meaningful except in association with measures of the other components of social or vocational adequacy.

Tests represent only one of the many tools and techniques of the vocational guidance counselor. In addition there are the interviews, projective devices, job and interest histories, subjective estimates of intelligence, personality, aptitudes, interests and achievements. To give either educational or vocational guidance, the counselor must be skilled not only in one or two of these tools, nor can he be merely familiar with them, but he must possess skill in the use of each. He must use judgment in the selection of the tools pertinent to the particular vocational or educational problem. Faulty guidance distorts the individual's own concept of his abilities and jeopardizes the possibilities for educational training and vocational success.

Non-Directive Psychotherapy. Recently a great deal of attention has been focused on the various counseling techniques and other forms of psychotherapy, particularly non-directive methods. Non-directive techniques have been evaluated, praised, and criticized. The authors feel that while such criticisms are healthy, and should be encouraged, statements appear in them which often lead to unintended results. For instance, several criticisms of non-directive techniques have been made implying that these techniques are simple and easy and that

almost anyone is capable of applying them successfully. Thorne (4) states, "Non-directive methods are relatively simple to master, require little clinical experience with which to obtain results and involve relatively small dangers of worsening the patient's condition by inept bungling." The meaning of such a statement can be very easily misinterpreted, by the interested but uninformed beginning psychology student, to mean that practically anyone is capable of carrying on non-directive counseling effectively.

Such an interpretation would not only be incorrect but dangerous. Bungled therapy can be as destructive to one's total personality as unskilled surgery. For most individuals a great deal of courage is necessary to consider going to a psychological counselor. This is due to the unfortunate stigma still attached to emotional problems. Even after making the decision, most clients approach the counseling situation reluctantly, with a highly skeptical and somewhat fearful attitude. Hence if a counselor does an incompetent job of counseling, the client may become dismayed, and antagonistic towards all psychotherapeutic techniques. In disguised pre-psychotic cases and in instances of severe neurosis, poor counseling may serve only to drive the individual further into his disorder, especially if he feels threatened. Unskilled responses on the part of the counselor result in confusion rather than clarification of feeling, and consequently hinder rather than aid therapy.

The non-directive counselor's task is not simply to sit back and nod his head at various intervals. He must skillfully create a warm permissive atmosphere, accept both positive and negative feelings without moral judgment, clarify ambivalences and help the client get insight into his disturbances (1).

Psychotherapy is not merely a technique, it is an art. A. H. Maslow, and B. Mittelman (2) state "Quack cures are at best often harmful and they delay proper treatment." It should be realized that attempts at counseling and psychotherapy by the untrained and unskilled like the factors previously mentioned can lead to a great disservice to both the client and the profession.

SUMMARY

Taking the individual as our frame of reference, there are a number of specific and general principles to which the student can look for guidance during

his years of study toward preparation for one of the most challenging fields of science today.

Specific Cautions:

1. Don't label individuals with psychological terms.
2. Don't diagnose.
3. Don't give advice.
4. Don't attempt hypnosis.
5. Don't generalize freely.
6. Don't attempt treatment of individuals.

General Principles

A. The responsibility and course of action of a psychology student with regard to classmates who approach him for psychological aid is different from that involved in a friend-to-friend relationship. His responsibility is greater in that his classmate anticipates (although erroneously) expert and proven treatment from his psychology student-friend while he anticipates only sympathetic response from a student-friend.

B. The great majority of responses which the semi-trained can give to those in need of psychological help, while they may temporarily reduce tension, will likely interfere with the normal drive toward a healthy adjustment by either reduction of the drive or misdirection of the drive.

C. When entering into the study of psychology, the student should realize that he will be approached for help during his training. He assumes the responsibility of being aware of available resources for psychological services (such as student counselors, mental hygiene services, educational and vocational guidance counselors) and the responsibility of suggesting the proper resource to those who ask for aid.

D. Early in the introductory courses in psychology, this information (the resources) should be made available to students. Therefore, psychology departments, their instructors and professors share this responsibility.

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Comment

PRACTICE IN PERSONNEL PSYCHOLOGY

The University of Illinois has rendered great service to the industries of the state, both through its vast research programs and through the Extension Division. This latter branch of the university has made available many valuable courses of instruction in numerous technical fields. Wherever there is a reasonable demand, the university has been carried to the industrial workers. Also assistance in the development and improvement of employee-relations programs has been extended to industry. However, until quite recently little effort has been devoted to the study and improvement of the working conditions for the hundreds of nonacademic employees hired by the University.

During the past year, special arrangements have been made by the local Office of Nonacademic Personnel and the Department of Psychology whereby graduate students engage in research on problems which exist in the relations between the nonacademic employees and the university. The benefits of this program are two-fold: the students earn credit in industrial psychology while learning about practical situations instead of being restricted to theoretical textbook problems; and the employees profit by the research devoted to improving employment conditions.

One of the research projects now in progress is a systematic evaluation of the three hundred classifications of nonacademic positions. Each position is analyzed in an attempt to assign proper relative values to each of the factors which determine the location of that position in the salary structure.

A chart is then made by plotting the point value for each position against its present salary. A line of best fit is then drawn on the chart. Positions which fall more than one standard deviation from the line of best fit are carefully scrutinized, and an attempt is made to rectify the salary. When the present salary is found to be above the line of best fit, the salary of the person now holding that position is not reduced. However, replacements are made in line with the general salary structure.

In addition to determining the salary range for each position, an effort is made to determine the proper place within the range for each individual on

a merit basis. Every employee is rated once a year. This merit rating is considered as one factor in determining the salary of that individual. Methods of increasing the validity and reliability of these ratings are being studied.

The scientific construction of examinations to be used in the selection of employees for filling vacancies in each of the three hundred classifications is another research project under way. Performance tests as well as several of the standard paper-and-pencil examinations are used for this purpose. Tests are validated by administering them to experienced employees known to be capable of meeting the requirements for their classifications.

A project in attitude measurement has been completed. A survey was conducted by distributing questionnaires to all employees, who were instructed that the signing of names was optional. The scale measured employee attitudes toward such factors as opportunity for advancement, fairness of examination system, proper retirement age, fairness of salary as compared to that which is paid other people doing similar work, the extent to which supervisors are capable of answering questions concerning university policies, training programs, and recreation programs. Results of this poll were published in the employee newspaper, *The Illini Worker*. In most instances, employee attitudes were surprisingly favorable. Many well-founded comments and suggestions were written on the questionnaires. This gave a splendid opportunity for employees to "air" small grievances that had perurbed them, in some instances for many years.

While the program is relatively new, the results seem to justify its continuation. The training provided for the students by these projects appears to be very valuable in preparing them for future work in the field of personnel.

GERALD CARTER
University of Illinois

A NEW TYPE OF ELEMENTARY COURSE

Rightly or wrongly the uninitiated elementary student expects psychology to supply him with aids in meeting people, inspiring their cooperation and in solving everyday problems of human relations. As

academic psychologists promoting the *science* of human behavior we may quickly and rudely disabuse students of that notion. Certainly the conventional outline emphasizing methodology, the facts of sensation, conditioning, memory, motives, emotions and so on should convince even the most obtuse student that elementary psychology does not directly teach one how to live congenially with other people. *Psychology now is more interested in applying scientific methodology to human behavior than in solving the problems of human behavior.*

Of course, somehow or other we *hope* that a course in elementary psychology will assist students in making a better adjustment to the world about them. Indeed, this hope is fulfilled in some instances. But an examination of any of the conventional elementary textbooks makes one wonder what a student could possibly learn that would be of benefit to him in getting along with his work associates, his fraternity brothers, his wife, or the family he may some day rear.

The current and recent eruptions in labor-management relations, the increasing divorce rate, mounting juvenile delinquency, race riots, and international tensions unrelieved by a devastating war—all these point to the pressing and immediate need for social skills leading to harmonious, cooperative relations between men. As instructors of elementary psychology, we can wrap ourselves in our scientific cloaks and remain unruffled by the world in which we live. Or we can apply what limited and imperfect knowledge we now possess to assist students to understand the human basis of cooperation and conflict.

Not only is the conventional elementary course teaching a content that is out of touch with life but it tends to encourage a way of thinking that is fruitless and of doubtful value in dealing with the day-to-day adjustments of the average person. We teach students the importance of laboratory control over all variables. We show how a single stimulus variable may be isolated from its context by holding all others constant and then observing a small segment of behavior. We focus attention on the importance of repeated observations under highly controlled laboratory conditions. The whole effort is to simplify the causative factors to establish their influence on behavior. This constant effort to force students to look at single factors in isolation is a positive hindrance in comprehending problems of human in-

teraction which are exceedingly complex. In other words, we teach students to simplify their observations, to isolate factors, to look for one-to-one correlations, when the desperate need in the social clinical field is for broad perspective, vision that can encompass not only a wide variety of factors but a vision which will see the interrelations of impinging conditions as well as their multiple chain reactions. Notwithstanding the emphasis of the Gestalters on the importance of context and ground in the perceptual and learning fields, we have yet to alter our instruction to give practice in what Elton Mayo calls syncretistic thinking, that is, taking simultaneous account of all possible stimulus conditions and their mutual interdependence.

I am not deploring scientific methodology, nor am I suggesting that psychological laboratories should be closed. These have their place and are essential. But the conventional elementary course does not meet the needs nor the expectations of the vast number of students who intend to take only one or two courses in the department. The scientific tradition of psychology should be perpetuated but the elementary course need not be loaded with this burden.

The course¹ which I have in mind aims primarily to develop an attitude and a way of thinking rather than a technical vocabulary, a long list of established facts, or a handful of doubtful abstractions called "laws" of behavior. The material of the course is a series of experiences or problems which individuals actually faced. These cases are not to be confused with a case history or report as written by a social service investigator. They are true narratives reporting events and conditions surrounding a situation that called for some judgment and decision for action.

Consider the story of Ken whose roommate was pledged to the fraternity that blackballed Ken, even though he was a "legacy." Ken's background, his family, experiences in prep school, his expectations in coming to college, his attitude toward this rebuff, the college, the roommate's attitude and background are described and presented to the class for discussion. If you were the roommate what would you do? What must be considered in deciding on a line of action in this case?

¹I am indebted for much I have to say here to a group at Harvard with whom I was briefly associated; the former Dean of the Graduate School of Business, Dr. Wallace B. Donham, Professors Elton Mayo, Fritz Roethlisberger and others.

Or consider that foreman who walked into the shop at the moment a new workman named Joe sent the union steward sprawling across the floor. The foreman discovered that Joe was not only non-union but was a "rate-buster," eager to assemble crank cases in the shortest possible time, taking advantage of ingenious shortcuts. In brief, Joe was a valuable workman for management but a disrupting influence on the morale of the shop. How would you handle Joe, or the union if you were the foreman? What else would you like to know that is not contained in the write-up of the case?

Each case as presented to the class may run six to ten single spaced pages. Inferences concerning the significance of events are scrupulously avoided since one of the objectives of the course is to give the students practice in making such inferences.

Class discussion proceeds with as little direction from the instructor as possible. He avoids expressing his own opinions. If discussion lags, he may summarize what has been said, much as an interviewer reflects and restates a client's feelings in non-directive counseling. Effort is constantly directed toward placing the responsibility upon the students to analyze, diagnose, and reach an understanding of the multiple facets of a situation before deciding upon a line of action. The class session is not a time for quizzing students on the contents of a text nor is it a time for the instructor to perform as a doubtful fountainhead of wisdom. The educative process is, in a real sense, self-education.

Supplementing the class discussion of cases are a series of reading assignments, dealing with semantics, informal and formalized social codes, the nature of authority, the influence of emotion on thinking, the subtle expression of prejudice and bias. Students are introduced to non-directive counseling and intel-

ligent listening as two skills which can be useful in a wide variety of situations.

This type of course has been given a trial at Harvard, Ohio University, Kansas University, and at Colgate. At Colgate the course receives an enthusiastic endorsement by the students. Some report it as the best course they have taken. It has given them an entirely new understanding of human interaction. Some want an advanced course along the same lines. I believe the students develop a maturity of judgment because of vicariously living through the cases of the course. On the other side, some complain that theory is not sufficiently stressed; that we never really came to any clear conclusions or set up rules which can be applied to settle all problems. This latter charge is true. In this field of human relations, there are now no universal rules.

A course such as I have described may not be psychology, but it is needed somewhere in the educative process. It is frankly a kind of elephant bird—some sociology, economics, semantics, anthropology, psychology, plain common sense. However, in a day when conventional departmental lines look suspiciously outmoded, we as psychologists had better recognize our responsibilities and lay a small token payment on the line now, against the huge social debt our technological civilization has thrust upon us.

Dr. John Jenkins at the beginning of the war remarked that the airplane had developed beyond man's ability to control it. The same is true of the rest of our technical and mechanical achievements. We have the gadgets to live richly. We lack the psycho-social skills to live harmoniously. This course is an attempt to develop those skills.

F. K. BERRIEN
Colgate University

Across the Secretary's Desk

NATIONAL SCIENCE FOUNDATION

Last year many psychologists were keenly interested in the debates over the wisdom of establishing a National Science Foundation and the relative merits of the type of foundation proposed in the rival Kilgore and Magnuson bills. When those bills were combined into the compromise Senate Bill 1850, most psychologists hoped that the bill would be passed and a foundation created. That did not happen. S. 1850 passed the Senate, but with provision for the social sciences deleted. There the matter died as far as the 79th Congress was concerned.

New bills have now been introduced into the 80th Congress. S. 1850 as it passed the Senate last year was reintroduced this year by Senator Elbert Thomas of Utah. It is now known as S. 525. Senator Alexander Smith of New Jersey introduced S. 526, similar to the Magnuson bill of last year. Parallel bills have been introduced into the House of Representatives.

House bills were referred to the Committee on Interstate and Foreign Commerce which held public hearings on March 6 and 7. The Senate bills were referred to the Committee on Labor and Public Welfare. That committee decided that no public hearings would be held this year in view of the extensive testimony on the bills last year.

The principal differences between the two Senate bills (and, likewise, the House bills) center around (1) the type of administrative structure, (2) regulations governing the disposition of patents, and (3) the treatment of the social sciences. The differences between the two bills are described in tabular summary in *Science* (March 7, pp. 253-254). The text of the Smith bill has also been printed in *Science* (February 21, pp. 191-195) as has part of the testimony given in the House committee hearings (March 21).

Last year the scientists of the country were divided among themselves on a number of differences between the Kilgore and Magnuson bills. This year many scientists have felt that they should resolve any differences of opinion that exist and agree upon supporting the type of foundation which their majority considers most desirable. The AAAS took

the lead by calling upon other scientific groups to join with them in organizing an Inter-Society Committee for a National Science Foundation. Approximately eighty scientific organizations appointed representatives to the first meeting on February 23. E. Lowell Kelly and I represented the APA.

An Executive Committee, elected at the February 23 meeting, has since polled the entire committee on the debatable issues.

Members of the Inter-Society Committee were asked which type of administration they preferred. Sixty-three per cent voted for a single Administrator, appointed by the President, who would work with the advice of a National Science Board.

Ninety-eight per cent of the Committee believe that the Foundation should include the social sciences as well as the natural sciences. The members were evenly divided between believing that the social sciences should be specifically included in the legislation and believing that the Foundation should be permitted to include work in the social sciences if it found that desirable.

Eighty-six per cent believe that the Foundation should grant undergraduate scholarships as well as graduate fellowships to science students.

Ninety-four per cent agreed that the Inter-Society Committee should take no stand on patent legislation.

These figures which have been given to the appropriate House and Senate committees constitute the best available expression of the pooled judgment of the scientists of the country toward the differences which exist in the present Science Foundation bills.

Because further news concerning these bills is likely to come in the immediate future, I suggest that psychologists keep themselves informed on the topic by reading the weekly accounts of any news pertaining to the bills in *Science*.

An effort will probably be made to combine the present bills into a single compromise bill. When debate begins in the House and Senate, amendments will probably be proposed. Congress' decision will depend to a considerable extent upon how actively and how quickly scientists inform their Senators and Representatives of their wishes.—DAEL WOLFLE

Psychological Notes and News

ANDREW W. BROWN, professor of psychology at the University of Chicago, died December 19, 1946, at the age of 56 years.

BERT A. NASH, professor of educational psychology at the University of Kansas, died February 18, 1947, at the age of 49 years.

HENRY BEAUMONT died February 21, 1947, at the age of 45 years. He was associate professor of psychology and director of the Industrial Psychology Bureau at the University of Kentucky.

ARTHUR KORNHAUSER, formerly professor of business psychology at the University of Chicago, has been appointed visiting lecturer in sociology at Columbia University and is doing consulting work in industrial psychology and opinion research.

CARL W. BOYER, who served as Personnel Consultant Officer and Classification Officer in the AGO, has returned to Muhlenberg College, Allentown, Pennsylvania, where he has been appointed director of the newly established Personnel Consultation and Test Bureau.

ARTHUR LICHTENSTEIN has been appointed assistant professor of medical psychology at the Johns Hopkins University.

DOUGLAS J. WILSON has resigned from the staff of the University of Western Ontario to become editor in education and psychology of the Montreal Daily Star.

D. J. ROBERTS has been appointed to the Texas regional organization of Rohrer, Hibler, and Replegle.

DONALD W. MACKINNON, professor of psychology at Bryn Mawr College, has accepted an appointment as professor at the University of California, Berkeley, beginning in the academic year 1947-1948.

GRACE H. KENT has been appointed visiting professor of psychology at the University of Miami. She was at Danvers State Hospital, Massachusetts.

DR. JOSEPHINE ROHRS HILGARD, director of the child guidance clinic at Children's Hospital, San Francisco, has been appointed associate clinical professor of medicine at Stanford University.

GEORGE K. BENNETT, formerly vice-president of the Psychological Corporation, was elected president at the February meeting. He succeeds PAUL S. ACHILLES, who has served as managing director from 1931 to 1944 and as president since that date.

HOWARD GRAY MARTIN has been appointed director of the Vocational Guidance Center recently established by Psychological Consultants, at 530 Powell Street, San Francisco, California.

AUSTIN DESLAURIERS is now clinical psychologist in the Bureau of Mental Hygiene, Office of the Health Department, Washington, D. C.

ORRIN H. CROSS has joined the staff of the psychology department of the University of Alabama as acting assistant professor.

CHARLES WILLIAM HUNTLEY, formerly Dean of Adelbert College, has succeeded CHARLES F. GARIS as Dean of Union College, Schenectady, New York.

ROSE GREENSTONE is now at the Lehigh Guidance Clinic.

ESTHER STUBBS VIK has been appointed psychologist at the Delaware State Hospital and Mental Hygiene Clinic.

ANTHONY C. WESTERHOF is now associate professor of psychology at Drake University, Des Moines, Iowa.

EVELYN POTECHIN (Mrs. Robert Perloff) has joined the developmental division of the research department of the Curtis Publishing Company as research associate.

MARY J. KIENZLE has been appointed assistant professor of psychology and JOE H. MCPHERSON

has been appointed instructor in psychology at the State College of Washington, Pullman.

LEOPOLD BELLAK has been appointed associate in psychiatry and assistant psychiatrist at New York Medical College.

At Brown University, HAROLD SCHLOSBERG has been promoted to the rank of professor of psychology and GREGORY KIMBLE to assistant professor. JOHN K. BARE and RICHARD L. SOLOMON have been appointed to the staff as instructors.

JOHN W. CHOTLOS has joined the Psychological Service staff of the Winter VA Hospital, Topeka, Kansas.

SOLOMON MACHOVER, formerly at Kings County Hospital, has been appointed Branch Chief Clinical Psychologist at branch office #2, New York, and CARL L. ANDERSON has been appointed Assistant Branch Chief Clinical Psychologist at the VA Hospital in Memphis.

F. C. BARTLETT of the University of Cambridge lectured on March 10 at the George Washington University on the topic "War Services of British Psychologists." On March 12 he lectured at the University of Maryland on "Social Psychology." He also gave several seminars to various groups of psychologists in the vicinity. He will visit the Aero-Medical Laboratory and the School of Aviation Medicine before his return to England in April.

The APA Committee on Psychological Service Centers has been enlarged so that it now includes the following representatives of relevant APA Divisions: JERRY W. CARTER, JR., Division of Clinical and Abnormal Psychology; ROBERT A. YOUNG, Division of Consulting Psychology; VERNON P. SCHEIDT, Division of Industrial and Business Psychology; BERTHA M. LUCKEY, Division of School Psychologists; C. GILBERT WRENN, Division of Counseling and Guidance Psychologists; and WM. CLARK TROW, Division of Educational Psychology.

MILTON H. ERICKSON, director of psychiatric research and training at Wayne County General Hospital and Infirmary and associate professor of

psychiatry at the Wayne University College of Medicine, conducted a three weeks post-graduate course in psychiatry at the Warren State Hospital, Pennsylvania, for the members of the staff there and for various hospital staff members sent to Warren from other Pennsylvania state hospitals.

The National Council of Women Psychologists has voted to change its title to the International Council of Women Psychologists. The officers are: GERTRUDE HILDRETH, president; HARRIETT FJELD, vice-president; MILDRED MITCHELL, secretary; and RUTH PATTERSON, treasurer.

The University of Louisville has established a psychological services center. NOBLE H. KELLEY is director and GEORGE A. MUENCH is consulting psychologist.

The New York State Association for Applied Psychology has elected the following officers: WALLACE WULFECK, president; ARTHUR WRIGHT COMBS, vice-president; GLADYS TALLMAN, secretary; and GEORGE K. BENNETT, treasurer.

The division of psychology of Western Reserve University is sponsoring a series of lectures and seminars in dynamic psychology from February 21 to May 23. The speakers, in the order in which they will lecture, are: O. HOBART MOWRER, THOMAS M. FRENCH, EDWARD C. TOLMAN, DAVID M. LEVY, GARDNER MURPHY, ROGER BARKER, and FRANZ ALEXANDER. It is planned to have these lectures published.

Indiana State Teachers College, Terre Haute, Indiana, has opened a new Division of Special Education with BERNADINE SCHMIDT as director. This expansion of services came just prior to the revision of the Special Classes Law of the State of Indiana, which provides financially for special classes and for medical, dental, and psychological services for handicapped children.

THADDEUS L. BOLTON, professor emeritus and former chairman of the department of psychology at Temple University, has established a trust fund of \$61,000. A portion of the income of the grant will be used for research projects by students and staff,

and the rest will be used for establishing, in part, the Thaddeus L. Bolton Professorship in Psychology.

George S. Stevenson, Medical Director of the National Committee for Mental Hygiene, has announced that the 1947 Lasker Award of \$1000 for outstanding service in mental hygiene will be presented for this year's most significant contribution to popular adult education, especially in parent-child relationships. Presentation of the award will be made at the annual meeting of the committee to be held on November 12 and 13 in New York.

The American Association on Mental Deficiency will hold its 1947 annual meeting in St. Paul. Inquiries should be addressed to Dr. L. N. Yepson, chairman of the program committee, Department of Institutions and Agencies, Trenton 7, New Jersey.

Behavior, an international journal of comparative ethnology, has been established to coordinate and survey the results of comparative behavior studies which have in the past been scattered throughout a large and varied selection of periodicals and other publications. The editors are: H. HEDIGER, Basel, Switzerland; P. PALMGREN, Helsingfors, Finland; W. H. THORPE, Cambridge, England; N. TINBERGEN, Leiden, The Netherlands; and F. A. BEACH, Yale University.

The Western Psychological Association will hold its spring meeting in conjunction with the convention of the Pacific Division of the AAAS, at San Diego, June 19-20. The San Diego Psychological Society is acting as host to the Association.

The Psychology 1 staff at Dartmouth College has been experimenting with some final examination questions which seek to measure ability at psychological interpretation rather than memory. Ruch's book has been used, but most of these questions are equally appropriate with any other text. Biserial correlations have been computed for each item on a group of several hundred students. Instructors wishing a copy of the examination and the validity coefficients should write on an official letterhead to Dr. C. W. Horton, Bureau of Educational Research, Dartmouth College, Hanover, New Hampshire.

The Division of Clinical and Abnormal Psychology has mailed application blanks to all APA members known to be interested in joining that division. Interested persons who have not already received application blanks should request them from the secretary of the Division of Clinical and Abnormal Psychology, David Rapaport, The Menninger Foundation, Topeka, Kansas.

Representatives of the regional office of the USES met at the Department of Labor on March 17 for a conference on the General Aptitude Test Battery. It consists of a set of fifteen tests designed to measure ten aptitudes for a large number of occupations. Inquiries about the new tests should be addressed to Nathan Jaspen, Department of Labor.

The Fourth Annual Meeting of the American Society for Research in Psychosomatic Problems is at Haddon Hall, Atlantic City on May 3 and 4, 1947. DR. JAMES L. HALLIDAY of Scotland will be one of the guest speakers.

The Princeton University Press announces that *Personnel Research and Test Development in the Bureau of Naval Personnel*, edited by DEWEY B. STUIT, will be available in March for \$7.50. It is an evaluative summary of the research in selection, classification, and training of personnel conducted by the U. S. Navy's Bureau of Personnel.

The instructional films in psychology which were produced and distributed by Warden and Gilbert of Columbia University have been turned over to the International Film Bureau, 84 Randolph Street, Chicago 1, Illinois. Requests for purchase or rental of the films should be addressed to that bureau.

The publication of *Persona*, an intercollegiate magazine of psychology, will be of interest to psychologists. The first edition of the magazine appeared in March. Inquiries and communications may be addressed to Arthur Bachrach, Editor, College of the City of New York.

The 1947 annual meeting of the Rorschach Institute will be held Saturday, May 17, at the New York State Institute, New York City. Inquiries

should be addressed to Dr. Marguerite R. Hertz, Division of Psychology, Western Reserve University, Cleveland 6, Ohio.

The Rorschach Workshops of the department of psychology of Western Reserve University, Cleveland, will be held from June 9 to 20. There will be two sections: the introductory workshop from June 9-13, and the advanced seminar in the Rorschach from June 16-20. One credit hour per workshop will be given and the fee is \$20. Applications should be made now to the department of psychology, Western Reserve University.

The Rorschach test seminar for 1947 at Michael Reese Hospital, Chicago, will be conducted June 2-6. Two groups will be studied: children presenting personality problems and adults with severe disturbances. Dr. Samuel J. Beck will demonstrate the test records and analyze them for the personality structures projected. The course is open to persons with qualified backgrounds. For information write to Psychological Laboratory, Division of Neuropsychiatry at the Hospital, 29th Street and Ellis Avenue, Chicago 16, Illinois.

The Rorschach Institute summer workshops, conducted by Dr. Bruno Klopfer and associates, will be held at the Homestead, Crafts, RFD 1, Carmel, New York, from June 8-21; at the campus of Bard College, Annandale-on-the-Hudson, New York, June 22-July 3; at Claremont College, Claremont, California, August 3-16; and at the Asilomar Conference Grounds, Pacific Grove, California, August 17-30. Each workshop carries three points of credit and the tuition is \$50. Inquiries and applications should be addressed to Dr. Klopfer, 3820 Waldo Avenue, New York 63, New York.

The psychology department of the Lynchburg

State Colony announces that there will be openings for a psychological intern on or after August 1, 1947. The appointment will be for twelve months and the intern receives full maintenance at the Colony and a stipend of \$100 a month. Inquiries should be addressed to Dr. D. L. Harrell, Superintendent, Lynchburg State Colony, Colony, Virginia.

The department of psychology of the University of Washington will offer 15 fellowships of \$1500 and the remission of tuition fees for the year 1947-1948. The holder of such fellowships will have complete charge of two sections of introductory psychology containing not more than 40 students and meeting five times weekly. Applicants should have an interest in college teaching, and the intelligence, interest in psychology, and ability to carry on graduate research. Applications giving all relevant information should be sent to the chairman of the department of psychology, University of Washington, Seattle 5. Recommendations should be sent directly to the chairman of the department.

Applications are invited for five internships in clinical psychology at the Worcester State Hospital and one at the Worcester Child Guidance Clinic. These are 12-month appointments, beginning either in July or September, and provide for complete maintenance. Applicants with graduate training at least equivalent to that required for the MA are preferred. Applications should be submitted to Dr. Eliot H. Rodnick, Worcester State Hospital, Worcester 1, Massachusetts.

The last number of the *Psychological Monographs* to appear was Whole Number 274, Volume 59, 1945. Two more numbers are to be included in Volume 59. We cannot predict when these two *Monographs* will be printed, but we will announce their publication in the *AMERICAN PSYCHOLOGIST*.

Convention Calendar

AMERICAN PSYCHOLOGICAL ASSOCIATION, INC.

September 9-13, 1947; Detroit, Michigan

For information write to:

Dr. Dael Wolfe, American Psychological Association
1515 Massachusetts Avenue, Washington 5, D. C.

ROCKY MOUNTAIN BRANCH OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

May 1-3, 1947; Colorado College, Colorado Springs

For information write to:

Dr. Lillian G. Portenier, Department of Psychology
University of Wyoming, Laramie, Wyoming

MIDWESTERN PSYCHOLOGICAL ASSOCIATION

May 2-3, 1947; Edgewater Beach Hotel, Chicago, Illinois

For information write to:

Dr. Claude E. Buxton, Department of Psychology
Northwestern University, Evanston, Illinois

WESTERN PSYCHOLOGICAL ASSOCIATION

June 19-20, 1947; San Diego, California

For information write to:

Dr. Lester F. Beck, Department of Psychology
University of Oregon, Eugene, Oregon

ILLINOIS ASSOCIATION FOR APPLIED PSYCHOLOGY

May 1, 1947; Chicago, Illinois

For information write to:

Dr. Milton A. Saffir, Secretary
55 East Washington St., Psychological Guidance Center,
Chicago 2, Illinois

EASTERN PSYCHOLOGICAL ASSOCIATION

April 25-26, 1947; Chalfonte-Haddon Hall
Atlantic City, New Jersey

For information write to:

Dr. J. McV. Hunt, Institute of Welfare Research
Community Service Society
105 East 22nd Street, New York 10, New York

SOCIETY OF EXPERIMENTAL PSYCHOLOGISTS

April 9-10, 1947; Princeton University
Princeton, New Jersey

Closed session for members only

For information write to:

Dr. Samuel W. Fernberger, University of Pennsylvania
Philadelphia, Pennsylvania

CANADIAN PSYCHOLOGICAL ASSOCIATION

April 10-12, 1947; Ottawa, Ontario, Canada

For information write to:

Dr. R. C. Myers, 100 St. George Street
Toronto, Ontario, Canada

NATIONAL COUNCIL ON REHABILITATION

April 29-30, 1947; The Coronado Hotel
St. Louis, Missouri

For information write to:

Mr. Holland Hudson, Secretary-Treasurer
National Council on Rehabilitation
1790 Broadway, New York 19, New York

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

December 26-31, 1947; Stevens Hotel, Chicago, Illinois

For information write to:

Dr. John M. Hutzel
American Association for the Advancement of Science
1515 Massachusetts Avenue, N.W.
Washington 5, D. C.

PENNSYLVANIA PSYCHOLOGICAL ASSOCIATION

May 10, 1947; Education Building,
Harrisburg, Pennsylvania

For information write to:

Dr. Morris S. Viteles, University of Pennsylvania
Philadelphia, Pennsylvania

INDIANA ASSOCIATION OF CLINICAL PSYCHOLOGISTS, INC.

May 3, 1947; Indianapolis, Indiana

For information write to:

Dr. Robert C. Scarf, Secretary
Ball State Teachers College, Muncie, Indiana

HOLT previews:

Psychology - Fifth Edition

Robert S. Woodworth
Columbia University

Donald G. Marquis
University of Michigan

In its other editions, this text has been the most widely used book in general psychology courses. The new edition continues its tradition of combining brilliant scholarship and a lucid style. The authors have simplified the organization of the book and added new scientific material. Sections of *Psychology* include: Individual Differences, The Foundations of Behavior, Adjustive Behavior, Knowing the Environment, and Mastering the Environment.

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G. Milton Smith
College of the City of New York

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